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EDITORIAL

PROPHYLACTIC STERILIZATION OF THE FEMALE

J. TYLER BAKER, M.D.*

Sterilization of the female during the puerperium, has in recent years, reached a rather high incidence on many obstetrical services throughout this state. That this procedure may have played a considerable role in the lowering of the maternal mortality rate in this state cannot be denied. On the other hand, are we being critical enough in evaluating the indications?

In some twenty-nine states there are laws governing compulsory, or involuntary sexual sterilization of the hereditary defectives, clearly delineating the indications. In Maryland there is no specific statute regarding involuntary or voluntary sterilization.

James F. Donnelly and Frank R. Lock (3) in a recent publication have enumerated the major indication for this procedure as follows: hypertensive cardiovascular disease, heart disease, tuberculosis, hereditary diseases, psychiatric disturbances, repeated cesarean sections, multiparity and where multiple pregnancies have caused such gynecologic conditions as prolapse, cystocele, or rectocele and corrective surgery was performed.

In addition they enumerate conditions which are not indications: Rh incompatibility, heart murmurs, difficult delivery, hyperemesis gravidarum, repeated fetal loss, associated operative procedures, lack of desire for children, disability of husband and economic and social factors.

Further they warn of the legal implications involved and advise (1) adequate and specific reason (2) signed recommendation of one or preferably two consultants on the patient's record.

However, there are still indications which some may consider valid which have not been enumerated, and a broader concept or perhaps rule of thumb might be in order. J. L. Baer (1) in a symposium on Medical Legal problems in 1936 discusses indications by stating, in context, that sterilization is permissible in any woman in whom pregnancy will aggravate existing disease which is not amenable to direct cure, undo previous corrective gynecologic procedures or any condition which may jeopardize life. H. E. Bowles (2) feels that sterilization should be accorded its proper place, with due recognition of its importance in prolonging a mother's life in those individuals in whom pregnancy would

* Editorial Board, Maryland State Medical Journal.

mean a burden which a frail body could not endure. If multiparity alone is the indication, let it truly be a sufficient number of children. The points, he adds, to be emphasized in the preliminary interview preceding sterilization should include: (1) The gravity of the step the patient is about to take; (2) That the idea of sterilization should originate with her and not have been sold to her by another; (3) The procedure (if successful) is irreversible; (4) The operation is not guaranteed; (5) The patient should have properly evaluated other birth control measures and be fully cognizant of them. Greenhill in discussing Bowles paper expresses himself as follows, "That he sincerely hopes that in the future, sterilization operations will be performed only for legitimate indications and only after proper consultation. In this way, patients who are refused sterilization by conscientious physicians, cannot shop around until they find doctors who will sterilize them, and hospitals where the authorities do not care what is done."

To paraphrase a paragraph in a recent editorial note of Dr. Eastman's (4) on therapeutic abortion we might say; "The paramount aim of obstetrics is the preservation of maternal life and health; and sexual sterilization must find its sole justification (if it can be justified) in the degree to which it serves that end. The incidence of sexual sterilization in any given clinic or state, while informative, is not the main issue; the real question is: Do all these operations actually save mothers' lives?"

In most instances of sterilization this question can be answered affirmatively as attested by the lowered mortality rate mentioned in the opening paragraph. Because of the place this procedure has attained as a prophylactic measure, the plea is made to maintain it on a high plane and prevent it from sinking into disrepute through misuse and abuse.

How then can this be done: In a number of hospitals throughout the State measures have been taken; in the majority the means are available. In general this means setting up criteria for indications of this procedure, use of proper forms for granting permission, proper consultation and the establishment or utilization of existing Hospital Review Boards which can review and pass upon the indications for both therapeutic abortions and sexual sterilizations. These should be included in the constitution and by-laws of the Medical Staff and Board of Directors respectively. With this accomplished, abuses which may now be apparent, will be eliminated.

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A CORDIAL INVITATION

for

NOVEMBER 5, 1953

from

Dr. Wetherbee Fort,
President, Baltimore City Medical Society

CLOSED CIRCUIT TV PROGRAM

1211 Cathedral Street, Baltimore, Md.

It is with pleasure that I announce a closed TV demonstration on THURSDAY, NOVEMBER 5, 1953, sponsored jointly by the University of Maryland School of Medicine, the Baltimore City Medical Society, and the Maryland Academy of General Practice. To this I would like to add that all members of the Medical and Chirurgical Faculty of the State of Maryland are cordially invited.

Patterned after a previous telecast held in 1952, the clinical demonstrations will originate in the operating rooms and clinics of the University Hospital and will be carried through the facilities of WBAL-TV by closed circuit to an audience of physicians in both the Gordon Wilson Hall of the University Hospital and Osler Hall of the Medical and Chirurgical Faculty, 1211 Cathedral Street (meeting place of the Baltimore City Medical Society). A double circuit return wire will offer the audience an opportunity to ask direct questions of the clinical demonstrator.

The program will start at 1:00 p.m. It will include a preliminary luncheon at 12:00 noon, to be served at the University Hospital and at Osler Hall—the latter by the Woman's Auxiliary to the Baltimore City Medical Society.

The clinical program will include clinicopathologic conferences, pediatric clinics, an operative clinic, and a gynecologic clinic, with several additions. These presentations will be given by members of the clinical staffs of the University of Maryland and The Johns Hopkins University Schools of Medicine. At this writing we are happy to announce that definite financial sponsorship has been given by the Read Drug and Chemical Company, for which the Staffs of the Medical Schools and the Baltimore City Medical Society are deeply grateful.

As I mentioned above, the telecast held in 1952, and sponsored by the Maryland Academy of General Practice, was a huge success. There is no reason whatsoever why this meeting on November 5 should not be equally so, but it needs your support. There is nothing more discouraging than to undertake a meeting requiring so much planning and work and yet have but a small attendance. SO, MARK THIS DATE ON YOUR CALENDAR NOW AND JOIN US FOR THE FULL MEETING, LUNCHEON INCLUDED, ON NOVEMBER 5, 1953.

Scientific Papers

THE PROTEAN CLINICAL FEATURES OF LEPTOSPIROSIS[1, 2]

THEODORE E. WOODWARD, M.D.[3] AND JOHN A. HIGHTOWER, M.D.

I. Introduction

Weil (1) in 1886, vividly described several human cases of leptospirosis. The classic disease, since the year of his observations, is known as Weil's disease and his description of icterus, fever, hemorrhagic tendency, renal, hepatic and vascular failure with a high fatality serve as a basis for present day reference. Years later, in 1915, Inada (2) identified the causative microbe as a spirochete which was subsequently named a leptospira by Noguchi (3).

Modern bacteriological research methods have complicated the picture through the identification and differentiation of many strains of leptospira shown to infect man. Unlike the classic entity, laid down by Weil, leptospiral infections now compose a multiplicity of separate diseases whose etiological, epidemiological and clinical features vary considerably. The pattern of events as described by Weil is reenacted on wards throughout the world today but emphasis must now shift to the great diversity of the clinical manifestations if we are to suspect and identify the disease.

The present paper will describe the variable clinical manifestations of the human varieties of leptospirosis known to be present in North America.

[1] Presented by Dr. T. E. Woodward at the One Hundred and Fifty-fifth Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday morning, April 28, 1953, in Osler Hall.

[2] This paper presented in part at the New York Academy of Medicine on January 21, 1953.

[3] Associate Professor of Medicine, University of Maryland School of Medicine.

II. Common North American Types

Following the lead of Australian, European and oriental investigators, human cases of *L. icterohemorrhagica*, *canicola* and *pomona* have been identified in the United States (4, 5). Recently recognized in this country is Indonesian leptospiral infection (*L. bataviae*) (6) capable of causing diseases as severe as the classical Weil's type. At Fort Bragg *L. autumnalis* has been isolated from soldiers who contracted the previously unidentified disease of pretibial fever (7).

The application of modern methods in the investigation of a recent human outbreak of leptospirosis in Puerto Rico has extended the knowledge of the disease on this island (8, 9). In addition to *L. icterohemorrhagica* known to be a cause of human disease, five additional types have been isolated and identified during studies of an epidemic in 1950–1952 (8, 9).

III. Clinical Description

Classical Weil's Disease (*L. icterohemorrhagica*). After an incubation period of about eight days, the disease characteristically begins with a rigor and fever. The pyrexia of the classical case continues between 102° to 104° F. for about eight days and falls by rapid lysis. Sudden toxemia, weakness, intense unrelenting headache and myalgic pains of the legs, back, neck and abdominal muscles appear during the early days. The extreme muscle tenderness is a characteristic clinical feature. Arthritic pains may be intense. Gastro-intestinal unrest manifested by nausea, vomiting and diarrhea are

noted frequently. A confused state of mentality may occur earlier in this disease than in other common infectious diseases.

A tendency to hemorrhage may occur during the first week of illness with gastrointestinal bleeding or hemorrhagic diathesis of the skin, conjunctivae and mucous membranes. Hyperemia and pericorneal injection of the conjunctival vessels is characteristic quite early in the illness and is often pathognomonic of leptospirosis. The conjunctival reaction is usually without secretion and may persist for several days. Not uncommon as eye manifestations are iritis, iridocyclitis and uveitis. These complications which occur usually in convalescence have a reasonably favorable prognosis. An exanthem similar in some respects to scarletina or German measles is not uncommon and occasionally the lesions may assume a petechial character.

The circulatory status may be likened to the rickettsioses with respect to hypotension and peripheral vascular weakness often of shocklike degree.

Jaundice, when it occurs, appears usually at the end of the first week of illness simultaneously with the defervescence. It may intensify rapidly and persist for a month or more. Fatalities occur among the jaundiced but the intensity of icterus is not necessarily of prognostic significance. Concurrent with the appearance of icterus is the development of hepatomegaly. Splenomegaly cannot be considered a characteristic feature.

The renal, in addition to the hepatic and circulatory manifestations, constitute by far the most helpful prognostic signs. Albuminuria is consistently present in the severely ill. Oliguria, and ultimately anuria, mark the serious cases and fatality may result from the renal involvement. Circulatory failure and hypotension certainly accentuate the azotemia by reducing glomerular filtration. A sudden diuresis may be considered a favorable omen and fortunately after recovery, permanent renal damage is uncommon. The hepato-renal manifestations occur most frequently during the second week of disease after the temperature has reached normal levels.

Not infrequently the neurological manifestations may dominate the clinical picture. In addition to cephalgia, meningitic symptoms frequently appear. Meningism may be extreme, spinal fluid pressure is often increased and a pleocytosis, composed principally of lymphocytes commonly encountered. The meningitis usually subsides uneventfully although troublesome neuritis may ensue.

Leukocytosis and a hypochromic anemia represent the more usual alterations of the hematological picture.

Death occurs in approximately thirty per cent of the jaundiced or in patients classified as severely ill. Occasionally death may ensue during the early stages of the disease as a result of vascular collapse or hemorrhage from the gastrointestinal tract. Usually the patient succumbs in the second week of illness from uremia. The controlling features, therefore, are the stability of the renal, hepatic and vascular systems.

Mild Case (L. icterohemorrhagica)

Illness in the non-icteric case is characteristically milder and invariably terminates favorably. The course of fever is approximately 5–7 days, headache and myalgic signs are present but less intense than in the classical form. Hemorrhage from the intestine, mucous membranes and skin are much less common in the milder case and congestion of the conjunctivae remains a very characteristic sign particularly during the early days of illness. As a rule, when the temperature reaches normal levels, the usual signs of toxemia rapidly abate. Furthermore, the renal and vascular complications do not occur. Conversely, the meningeal features of leptospirosis may accompany the mild case and occasionally run a protracted but benign course.

A variable clinical course is seen, therefore, in patients infected with *L. icterohemorrhagica* and it is possible that fifty per cent or more of the

cases of this category may be of the mild type. Fatalities in the jaundiced are approximately thirty per cent and are caused by hemorrhage, circulatory or renal failure. Leptospiral meningitis and eye complications such as iritis or optic neuritis are encountered in mild as well as in severely ill cases.

L. canicola

Leptospiral infections contracted from the dog are essentially similar to the classical Weil's type. Jaundice is very infrequent and meningeal symptoms as well as ocular signs occur (10).

L. pomona

The agent of swineherd's disease, first identified in Pomona, Australia, was given its name of *L. pomona* by Derrick (11) in 1942. The clinical manifestations resemble the mild form of Weil's disease with pyrexia of about seven days and a very low incidence of icterus and death. One of the frequent findings of human *L. pomona* infections is the high incidence of aseptic type meningitis.

In this country Schaeffer (12) has reported the clinical findings among a group of children and young adults who contracted the disease following bathing in a local swimming hole in Alabama. Among twenty-six patients, fever, chills, headache, meningismus and pain in the back were uniformly encountered. Arthralgia and myalgic pains were found in a high percentage whereas nausea, vomiting, constipation and diarrhea were less frequent. Less than one-half of the patients complained of photophobia or showed signs of conjunctival irritation. None were jaundiced or showed signs of hepatic or renal involvement. A noteworthy finding in this well studied series was the presence of signs of aseptic meningitis in six of the twenty-six patients who demonstrated a pleocytosis of lymphocytes and increased intracranial pressure. Beeson and others (13, 14) have likewise incriminated leptospirosis as a cause of approximately ten per cent of those illnesses presenting as benign serous-type meningitis. Therefore, leptospirosis must be considered as a possible etiological cause along with lymphocytic choriomeningitis, mumps, herpes, poliomyelitis, coxsackie disease and the various neurotropic encephalitides when spinal fluid containing lymphocytes is present.

L. bataviae

The Indonesian form of Weil's disease has been detected in the United States and Puerto Rico (6). The clinical features are similar to classical leptospirosis of the icterohemorrhagic type (10). The variability between mild and severe cases, incidence of jaundice, renal and vascular complications and death are roughly comparable.

L. autumnalis (Pre-tibial fever)

Leptospirosis caused by *L. autumnalis* has been recognized in Japan as a mild febrile disease of about seven days duration characterized by slight icterus in a small percentage of cases and a low fatality rate (15). In 1943 Daniels and Grennan (16) described a dengue-like illness of unknown etiology among soldiers at Fort Bragg, North Carolina. The disease, of short duration, was characterized by moderate prostration, fever, splenomegaly and a rash peculiarly localized to the anterior aspects of the legs which gave rise to the name pre-tibial fever. A multiplicity of laboratory tests failed to reveal the nature of this disease. Tatlock (17) in an extensive study adapted the unknown agent thought to be a virus to various experimental animals and also to fertile hens eggs. He successfully reproduced the characteristic signs and symptoms of the Fort Bragg illness in human volunteers.

Recent research investigators of the Army Medical Research Graduate School (7) have successfully identified the causative agent as a leptospira similar immunogenically to *L. autumnalis*. Further studies of the sera from patients with this illness revealed high antibody titers to antigen prepared from this strain.

IV. Additional Protean Features

Occasionally a febrile course of four to six days duration with a saddle-back trend similar to dengue fever is noted. Furthermore, it is not unusual for the temperature to continue in some cases during the early days of the icteric stage, up to the tenth to twelfth day of disease. A febrile relapse with a return of the usual objective and subjective manifestations is not uncommon occurring one to two weeks after the initial defervescence. A localized pneumonitis accompanied by the expectoration of blood-tinged or grossly sanguinous sputum is rarely encountered.

Conclusions

Human leptospiral infections may masquerade as a multiplicity of separate diseases whose clinical features vary considerably. The diversity of the signs and symptoms range from the mildness observed in clinical grippal infections to the fulminant pattern not infrequently observed in infectious hepatitis. The variability in severity between the mild and severe types, the meningeal manifestations and complications are discussed.

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DIAGNOSIS AND TREATMENT OF RINGWORM OF THE SCALP[1]

HARRY M. ROBINSON, JR., M.D.[2]

The first epidemic of the ringworm of the scalp occurred in England in 1822 (1), and in 1843 Gruby (2), discovered one of the causative organisms and named it Microsporum Audouini. Sabouraud succeeded in growing this fungus in pure culture on artificial media in 1894 (3). The Wood light was first used as a diagnostic aid by Margarot and Deveze in 1925 (4). Tinea Capitis has been endemic throughout the United States for many years but in 1944 the number of infected children rose to epidemic proportions. The number of cases reported from Hagerstown, Maryland was great enough to necessitate the intervention of the United States Public Health Service. In recent years, due to the large number of cases in the State of Maryland, it has become necessary for the Baltimore City Health Department and the State Health Department to institute public health measures to prevent the spread of the disease. Many reports have been published regarding the value of various topical remedies in the treatment of ringworm of the scalp, but roentgen ray epilation as originally described by Sabouraud and Noire (5), is still one of the most satisfactory methods of treatment.

Course of the Infection

Extensive studies indicate that infection begins with the deposit of spores at the junction of the hair and the follicular orifice (Figure 1) and the invasion of the hair begins in the portion contained within the follicle (Figure 2). This phenomenon is suggested by the fact that hair extracted from a zone 2 to 3 millimeters outside of the patch which exhibits fluorescence under the Wood light will show fluorescence in that portion contained within the follicle but appear normal above the skin surface (Figure 3). A reservoir of infected material remains within the follicle, and as the hair grows the infection is carried above the surface of the scalp.

Pathology of the Infection

By use of the Hotchkiss-McManus stain, using the technique developed by Kligman and Mescon (6), the characteristic features of the infection of the hair by this ectotrix have been demonstrated. When this stain is used the spore sheath stains brilliant red. The hyphae within the hair are also visible but not so intensely stained. The infection of the hair starts by penetration of the cuticle and the cortex after which an ectotrix sheath of spores is laid down. This action takes place between the cuticle and the cortex of the hair by a fragmentation of the hyphae into arthrospores. The entire root of the hair is involved down to but not including the hair bulb (Figure 4a & 4b).

The infiltration of Microsporum Audouini throughout the hair produces a chemical reaction which involves the hair pigment. When infected hair is examined under the Wood light, a brilliant greenish fluorescence is noticed. The nature of this fluorescent material has been the subject of much investigative work. Robinson, Bereston and Figge (7), have studied an aqueous solution of this material by spectroscopy and the infrared absorption spectrum suggests that this fluorescent material is a small molecule which resembles a peptide.

Cultural studies were conducted to determine the nature of the fluorescence obtained and to reproduce it on artificial media, but all such

[1] Presented at the One Hundred and Fifty-fifth Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday morning, April 28, 1953, in Osler Hall.

[2] Associate Professor of Dermatology, University of Maryland School of Medicine.

studies were failures. Growth of fungi was not inhibited on artificial media by the addition of androgens and estrogens. The presence of fluorescence does not mean that the infectious material in the hair is viable. In one of our experiments, we examined hair that had been stored for 5 years in a stoppered tube. The hair retained its fluorescence but failed to produce a growth on artificial media (8 & 9).

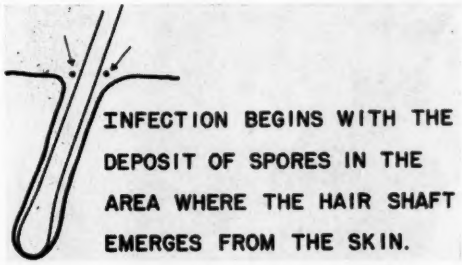


FIG. 1

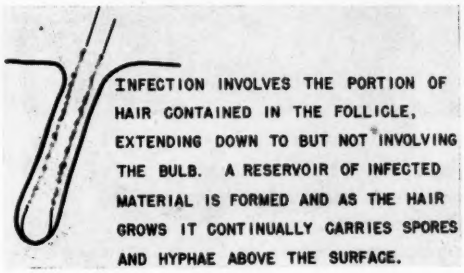


FIG. 2

DIAGNOSIS OF TINEA CAPITIS

The clinical appearance of Tinea Capitis in a well developed case is characteristic (Figure 5). There are one or more well defined areas of partial alopecia. The lesions may be discrete or confluent and the remaining hair is irregular, broken off and sometimes the scalp in the involved area is covered with an adherent dry grayish scale. In some instances where secondary infection has developed, the area is boggy and there are follicular pustules over the surface (Kerion) (Figure 6).

All patients who are suspected of having Tinea Capitis should be examined under the Wood light. The infected areas glow with a brilliant greenish fluorescence when exposed to this illumination in a dark room. The standard Wood light is the most satisfactory piece of equipment to be used for this purpose. The purple X bulb is inexpensive but it is only of value where there is gross infection. Patients with small areas of involvement would not be diagnosed by this method. The mineral light is less expensive than the Wood light, more satisfactory than the purple X bulb but does not approach the efficiency of the larger piece of equipment.

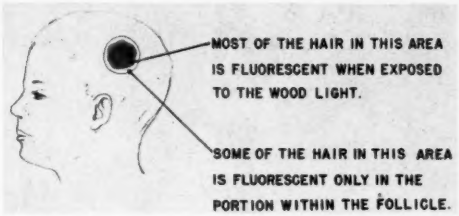
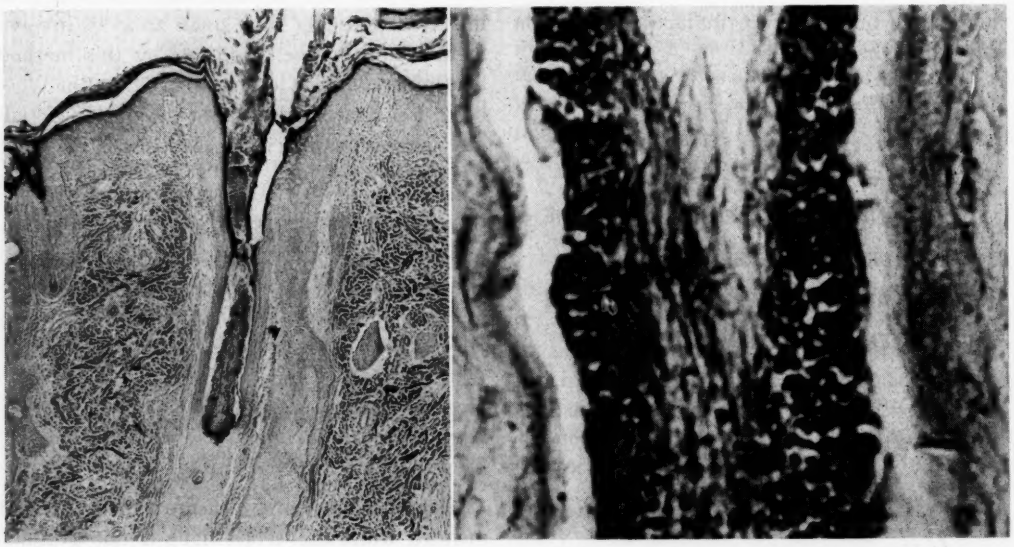


FIG. 3

A simple diagnostic measure which is recommended when the Wood light is not available is the direct microscopic examination method. Hairs are extracted, placed on a standard microscopic slide and covered with a cover slip. A few drops of 10% potassium hydroxide is placed at the side of the cover slip and by capillary attraction surrounds the hair. This material is macerated for 10 to 15 minutes, then the excess of potassium hydroxide is absorbed by a blotter and the slide is examined under the microscope with reduced light to determine the presence of spores and hyphae.

The preceding two measures will demonstrate the presence of infection in the scalp, but the causative organism may only be determined by the use of culture of Sabouraud's media. This is a very important step to take because the type of organism grown on artificial media will determine the nature of the treatment the patient is to receive. If the culture is positive for microsporum Canis (the animal type of fungus), the

condition will respond readily to local applications, and the convalescent period will be brief, however, if the organism is Microsporum Audouini we are dealing with a resistant fungus and occasionally such heroic measures as x-ray epilation are necessitated. Sabouraud's media is inexpensive and can be procured from any hospital laboratory at a nominal cost.



4b
× 40

4a
× 10

FIG. 4. Histopathology of Microsporon Audouini infectionof the hair.

TREATMENT OF TINEA CAPITIS

At the present time there is no drug that is specific for the treatment of this infection by local application. Experimental and statistical studies have been conducted with the currently used fungicidal drugs but none of these have been found to be effective in producing a cure in more than 40% of the patients. Decupryl, Salundek, Salinidol, Furaspor, Acrizane, Asterol Dihydrochloride, Cresatin and Spergon are among the products which are commercially available. The reason for the failure of these local applications in the treatment of this disease in 60% or more of the patients, is the fact that the major site of the involvement is in that portion of the hair contained within the follicle where there is a reservoir of spores and hyphae. There is no drug available at the present time which will enter the follicle and destroy the fungus without also damaging the hair papillae. The recommended procedure for the management of the case of Tinea Capitis is as follows:

The entire head is to be shaved or clipped closely and the local application selected is to be rubbed into the involved area twice each day. The head is to be washed once each week and the shaving or clipping of the hair is to be repeated once each week. During the course of treatment the child is to wear a cap made of some washable material all of the time. The cap should only be removed when treatment is being applied. The child should be examined under the Wood light for characteristic fluorescence every two weeks. When the Wood light examinations have been repeatedly negative for a period of two months and cultures from the infected site does not produce a growth on Sabouroud media, a cure has

been obtained. If after two months of local application a satisfactory result has not been obtained, the child should be referred for x-ray epilation of the scalp. The entire scalp should be treated using the five points as outlined by Mackee (Figure 7). The so called spot epilation should not be used because in many instances infection may develop outside of the treated areas and this would obviate the possibility of

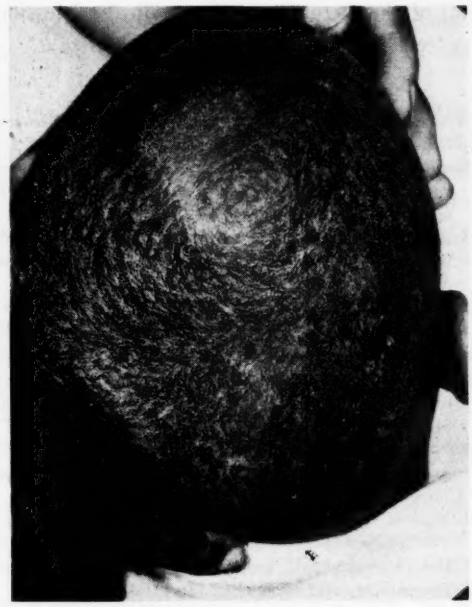


FIG. 5. Tinea Capitis. Note the scaly areas of partial alopecia and the broken-off hair. These areas glow with a greenish fluorescence when exposed to the Wood light in a dark room.

ever using this method of treatment again. Three weeks after the epilating dose of x-ray has been given, hair will fall out of the treated areas. The loose hairs present may be removed by adhesive tape strips. At the end of five weeks after treatment epilation should be complete. The dose necessary to produce this result varies from 325 to 400 R. units. Approximately six weeks after epilation is complete, hair will begin to regrow and in six months the regrowth is actually complete.

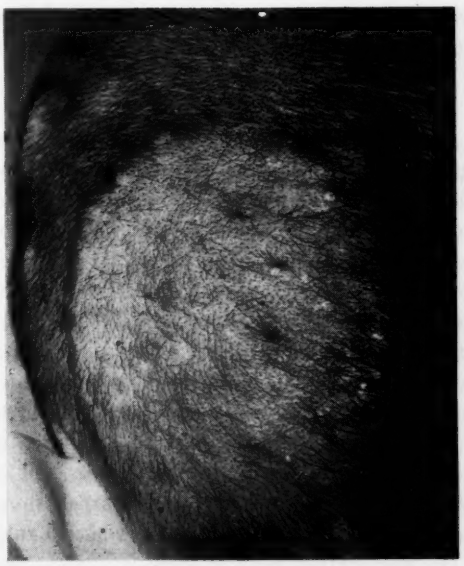
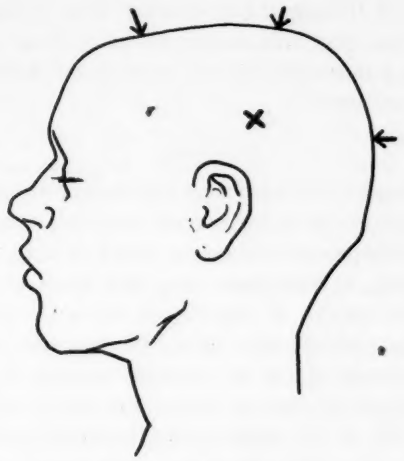


FIG. 6. Tinea Capitis. Note the follicular pustules present. This is a beginning Kerion.



POINTS FOR X-RAY EPILATION

FIG. 7. These are the standard points for roentgen epilation of the scalp of a patient who has tinea capitis.

In the event that secondary pyogenic infection develops in the ringworm areas, x-ray epilation is unnecessary. Treatment may be instituted with the broad spectrum antibiotics by mouth and by local application in order to overcome the

pyogenic invaders. When the pyoderma subsides, the fungus infection is usually also under control.

Public Health Measures

All children who have Tinea Capitis should be reported to the local Health Department and follow up measures should be instituted to insure their remaining under treatment until completion of the case. At periodic intervals, school children should be screened by capable personnel using the Wood light. By this means infected children may be segregated and referred to some proper treatment agency. The physician who institutes treatment should insist on careful attention to public health rules. To diminish the spread of the infection, children should be warned not to swap hats with other children. Barber shops should be made to abide by public health rules in the sterilization of all of their equipment and children attending movie houses should either wear hats or place a clean hand towel over the back of the seats. Immediately after having a hair cut, the child should be taken home and given a thorough shampoo to wash out infected hair or spores.

Summary

Tinea Capitis is a benign but highly contagious disease which at the present time has reached epidemic proportions among school children, particularly in the more congested areas of the eastern portion of the United States. Unfortunately, children who have this infection have been made to feel as outcasts in some of the schools, and a mental hazard has been created, not only for the child, but for the parent as well. The physician who is charged with the responsibility for the management of such a patient should carefully and fully explain the nature of the disease to the parents as well as the type of treatment to be used and what may be expected of it. This latter statement is especially necessary in the event that x-ray epilation is to be used. Public health measures are to be enforced to prevent the spread of infection. If this disease is to be among those eliminated the cooperation of all of the members of the medical profession who treat these cases is necessary.

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PRIZE ESSAY ON CARDIAC SURGERY

The Trustees of one of America's oldest medical essay competitions, the Caleb Fiske Prize of the Rhode Island Medical Society, announce as the subject for this year's prize dissertation "RECENT ADVANCES IN CARDIAC SURGERY." The dissertation must be typewritten, double spaced, and should not exceed 10,000 words. A cash prize of $250 is offered.

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BONE BANK[1]

HENRY G. REEVES, JR., M.D.[2]

Within the past thirteen years the process of preservation of tissue by freezing and other methods has transformed transplantation of homogenous bone from an experimental into an accepted orthopedic procedure. Macewen, in 1878, was the first to use homogenous bone and in 1912 Carrel demonstrated that human tissues preserved in cold storage could be used in surgery.

However, preserved homogenous bone grafting did not gain impetus until 1940 when Inclan first reported his experiences with bone grafts which had been preserved in citrated blood in an ordinary refrigerator. Two years later he reported 52 cases of homogenous grafts with 75% good results. Since that time a number of methods have been described for the preservation of bone. Reynolds and Oliver reported satisfactory results by storing bone in aqueous merthiolate.

The most satisfactory practical method of storing bone was reported by Bush and Garber in 1948. In this method the bone to be stored is scraped of soft tissue and periosteum, cultured, and placed in a sterile jar with a screw top. This jar is then placed in a second sterile jar which is covered by a rubber dam and then placed in a freezing unit which is maintained at −10 to −20 degrees centigrade.

The sources of homogenous bone are varied. The most readily available sources are ribs collected at the time of thoracotomy, tibias and femurs from clean amputations, and portions of the iliac crest during open reductions of hips.

The bone of the femur and tibia is thick cortical bone and is useful in the bulk type of graft. Cancellous bone from the iliac crest, tibial and femoral condyles, however, is more valuable since it is rapidly invaded and revascularized. This type of bone is the source of bone chips and bone "meal" which find the widest range of usefulness in homogenous grafting.

Bone may well be collected under sterile conditions from individuals who have died from trauma, cerebral accidents, and coronary disease provided it is collected within four hours after death. Specimens from individuals who have a positive serologic test for syphilis, a history of recent jaundice, malaria, or infection should be avoided. Patients who are known to have, or suspected of having a malignancy, are not candidates for collections. The necessary information concerning the donor and specimen are filed on a card index at the time of collection.

At the time of collection a culture is made of the bone. Originally, cotton swabs were passed over the surface of the bone in culturing but because of the high incidence of contamination it has been decided that a small fragment of bone should be placed in a sterile broth medium for a culture. Cotton is very difficult to sterilize to the degree where all spores are killed and it has a faculty for picking up airborne contaminates.

The bone is then placed in double sealed, sterile jars and the jars are immediately put into a freezing unit. The bone, by being immediately placed in the unit, is frozen with its' own fluid and no additional fluid is added.

The freezing unit is maintained at −10 to −20 degrees C. These temperatures are at best bacteriostatic and not bacteriocidal. After twenty-four hours, if the culture is negative, the bone may be used. At temperatures below −10 degrees C. homogenous bone may be preserved indefinitely. However, in slightly warmer temperatures of −2 to −3 degrees C. bone can be preserved for only two to three weeks. Weaver

[1] Presented at the One Hundred and Fifty-fifth Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday morning, April 28, 1953, in Osler Hall.

[2] Assistant Resident in Surgery, University Hospital, Baltimore, Maryland.

has used bone in a successful graft over three hundred days after its original collection but the failure rate of grafting is higher in bone preserved for long periods of time.

The temperature in the storage unit is ascertained by a maximum-minimum thermometer. By this thermometer the highest and lowest temperatures are recorded from the last setting of the thermometer.

Cultures should be made of the stored bone at bi-weekly intervals under aseptic conditions. Any positive culture automatically discards the stored bone.

When a case is going to be done which requires homogenous grafting, the bone selected is removed from the freezing unit about four hours before use in order to allow the bone to thaw out. This preparation, however, is not essential and if during the course of an operative procedure a need for homogenous bone arises it may be removed directly from the freezer and used.

After the bone is removed from the sterile jars at the time of operation it may be cut into desired size and shapes depending on the necessity of the procedure.

The uses of refrigerated bone are varied. The field in which it has its greatest usefulness is in spinal fusions, whether it be for tuberculosis, scoliosis, or low back pain. The secret of a successful fusion is dependent on having an abundance of bone and homogenous bone is a readily available source of any desired amount. In addition it shortens the serious operation by avoiding a secondary operation for autogenous bone.

The second field of usefulness is the filling of bone cavities. The cavities created by the removal of benign lesions have to be filled by osteogenic material in order to obliterate the defect. After the curettement of the cavity in osteitis fibrosa cystica, osteoid osteoma, or fibrous dysplasia the defect is often large and homogenous bone chips have been found highly successful in this procedure. Some operators have used bone chips in filling the cavities of chronic osteomyelitis. Wilson reported eight cases which had thorough debridement and filling with bone chips. Seven of the eight cases healed by first intention and have been followed for more than a year.

Homogenous grafts have been used with success in arthrodesis of the wrist, knee, hip, and foot. In ununited fractures homogenous bone is used as thin cortical strips in a barrel stave graft about the host bone. Cancellous bone is then used to fill in the spaces about the ununited fracture to supplement the cortical strips.

The wound infection rate following frozen homogenous grafts is about 2% but is proportionately high in those series where grafts are used in compound wounds and osteomyelitic cavities.

The results following homogenous grafting are comparable to .those of autogenous grafting. Every series reported has shown good results in better than 80% of the cases in which it has been used.

The fate of homogenous bone grafts after implantation has now been fairly definitely ascertained. They are well tolerated by living tissues and cause no adverse tissue reaction. Some of the larger homografts heal slower than autogenous bone but the end result is the same. This has been borne out by radioactive P 32 studies.

The process of freezing does not keep the bone cells alive but merely preserves them in a fresh state. In contrast, when autogenous bone is used in grafting, it is doubtful that enough cells live to make any difference in the healing of the graft. The function of homogenous bone is threefold. It serves as a framework or scaffolding to guide the invading elements of the host. It also serves a catalytic function in that its presence promotes an osteogenic reaction, and as a local supply of calcium.

Microscopic examination of sections where homografts have been laid down show the spicules to be dead being surrounded by connective tissue cells with osteogenesis taking place by

metaplasis. In due time the bone is absorbed and gradually replaced by living cells.

The chief advantage of homogenous bone is that it is a readily available source of bone in any amount that is necessary. Its use shortens the operative time and decreases the morbidity and shock found in autogenous grafting where a secondary operation is necessary.

Conclusions

1. The bone bank is a practical addition to any large general hospital.

2. Homogenous grafting is an accepted orthopedic procedure comparable to autogenous grafting.

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LABORATORY TESTS IN COMMON ENDOCRINE DISORDERS[1]

JOHN G. WISWELL, M.D.[2]

In recent years some physicians who have had long experience in clinical medicine have stated that physical signs are now being discounted and that too much reliance is being placed on x-rays and laboratory tests in making a diagnosis. Such statements may well be true and in this short discussion I shall attempt to point out the demerits as well as the merits of a few laboratory tests which are employed as aids in the diagnosis of endocrine disorders.

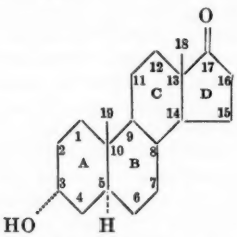
As is the case with normal physical signs, normal values provided by most laboratory tests have a wide range of variation. Therefore the significance of a test may depend upon the interpretation placed upon the result by the doctor. Many tests require a certain standard of chemical or biological technique and so the accuracy of the result may vary with the ability of the technician who performs the analyses. Such factors should

[1] Presented at the One Hundred and Fifty-fifth Annual Meeting of the Medical and Chirurgical Faculty of the State of Maryland, on Tuesday afternoon, April 28, 1953, in Osler Hall.

[2] Assistant Physician, Out-Patient Department, The Johns Hopkins Hospital, and Damon Runyon Fellow, Department of Medicine, The Johns Hopkins University, School of Medicine.

always be carefully considered in the evaluation of the result of any laboratory test.

First, let us examine the urinary excretion of 17-ketosteroids. Steroids comprise a number of biochemical compounds such as the bile acids, cardiac aglycones, sapogenins, sex hormones, adrenal cortical hormones and their derivatives. All have the basic cycloperhydrophenanthrene nucleus. A 17-ketosteroid has a ketone group on carbon 17. Estrogens also are 17-ketosteroids but they have a phenolic structure in ring A and are acidic in nature. The compounds with which we are concerned are the neutral 17-ketosteroids. The compound in figure 1 is androsterone, and



Androsterone

FIG. 1

17-Ketosteroids

the other common 17-ketosteroids have different bonds at C_3 and C_5. Those with the OH group projecting beneath the steroid nucleus at C_3 are alpha, those with the OH group projecting outward from the steroid nucleus at C_3 are beta, 17-ketosteroids. We shall discuss later the clinical significance of this difference. Testosterone which has an OH group on C_{17} is not a 17-ketosteroid.

The sources of the urinary 17-ketosteroids are the testis and the adrenal cortex. The excretion of these substances therefore depends on the function of these glands and on factors, for the most part unknown, which influence the formation of excretory products from hormones secreted by the glands. For the measurement of 17-ketosteroids, most laboratories request two 24-hour samples of urine, preserved with a few milliliters of concentrated hydrochloric acid or toluene.

In Table 1 are shown values of 17-ketosteroids in the urine per 24 hours which are found in normal individuals of various ages. Below the age of 6, one usually finds less than 1 mg. of 17-ketosteroids. From 6 to puberty the level rises to approximately 5.5. At puberty the secretory products of the testis are added in the male so that these values now reach a higher level than in the female where 17-ketosteroids arise only from the adrenal cortex. Note the wide range of

TABLE 1

Urinary Excretion of 17-Ketosteroids

(Milligrams per 24 hours)

0–6 years	0–1.0 mg.
6–12 years	0–5.5 mg.
12–20 years	2.0–12.5 mg.
20–40 years (Male)	12.0–16.0 mg. (6.0–25.0)
20–40 years (Female)	7.0–12.0 mg. (3.0–22.0)
50–90 years	3.0–8.0 mg.

TABLE 2

Decreased Urinary 17-Ketosteroids

1. Malnutrition
2. Adrenal insufficiency
3. Panhypopituitarism
4. Myxedema
5. Hyperthyroidism
6. Liver disease
7. Male castration
8. Hypogonadotropic hypogonadism
9. Anorexia nervosa
10. Anemia, gout, other chronic diseases
11. Diethylstilbestrol, methyl testosterone

variation found in normal adults (1). After the age of 50 the urinary 17-ketosteroids decline to a lower level again (2).

There are many conditions in which the urinary excretion of 17-ketosteroids may be decreased below the normal levels (Table 2). In malnutrition in which there is a deficient intake of protein, there may be an impairment in the synthesis of enzymes which are necessary both for the synthesis of hormones and for the degradation of these hormones into 17-ketosteroids. If the 17-ketosteroid excretion is less than 1 mg. in women or less than 3 mg. in men one can suspect adrenal insufficiency. A normal value in a female is certainly good evidence against Addi-

son's disease. One cannot usually distinguish Addison's disease from panhypopituitarism by the urinary excretion of 17-ketosteroids, except in the rare case of panhypopituitarism in a male in whom the 17-ketosteroid excretion approximates zero. Patients with long-standing myxedema may have very low excretions of 17-ketosteroids—as low as those found in Addison's disease (1, 3). In hyperthyroidism the values are only slightly below the normal level (4). The liver is presumed to be the main site of formation of 17-ketosteroids from circulating hormones, and therefore decreased excretions of 17-ketosteroids are found in liver disease (5). Hypogonadism in the male whether due to castration, primary testicular failure, or a decrease in the trophic hormones from the pituitary, may lead to decreased excretion of 17-ketosteroids. On the other hand in such cases the adrenal cortex may compensate by secreting increased amounts of androgens so that the urinary 17-ketosteroids may be entirely normal (4). In anorexia nervosa, as with malnutrition due to other factors, the 17-ketosteroid excretion may be diminished even to levels as low as those found in Addison's disease. Urinary 17-ketosteroids may be somewhat decreased in many chronic diseases such an anemia, gout (6), or by administration of diethylstilbestrol or methyl testosterone (7). The latter compound unlike testosterone is not metabolized to 17-ketosteroids.

There are various disorders in which there is a higher than normal excretion of 17-ketosteroids (Table 3). Of many patients who have hypertension, diabetes, and obesity, some may have hirsutism also and the possibility of the presence of Cushing's syndrome may arise. The urinary 17-ketosteroids may be elevated in Cushing's syndrome, but are frequently normal (8). In the former case, if the β fraction exceeds 50 per cent of the total 17-ketosteroid excretion, the existence of an adrenal tumor is highly probable. If the β fraction is not increased, then adrenal hyperplasia is the more likely diagnosis. The same conditions apply in the adrenogenital syndrome in which the 17-ketosteroid excretion is usually elevated (1). In female pseudohermaphrodites who have congenital adrenal hyperplasia the 17-ketosteroid excretion is increased. Dr. Lawson Wilkins and co-workers at The Johns Hopkins Hospital have shown that administration of 50 mg. cortisone daily for a week will suppress the 17-ketosteroids down to the normal level (9). On the other hand, if an adrenal tumor is present, cortisone either does not affect the 17-ketosteroid excretion or lowers it only slightly. Urinary 17-ketosteroids may be slightly elevated

TABLE 3

Increased Urinary 17-Ketosteroids

1. Cushing's syndrome
2. Adrenogenital syndrome
3. Congenital adrenal hyperplasia (females)
4. Hirsutism—females
5. Leydig cell tumor of testis
6. Arrhenoblastoma
7. Stress
8. Testosterone
9. ACTH

in an occasional instance of simple hirsutism in females who appear to have no other physical abnormalities. Such patients should have further investigation of adrenal and ovarian function. Leydig cell tumors of the testis have been known to produce very high 17-ketosteroid excretion (10). Arrhenoblastomas of the ovary accompanied by signs of virilism may result in increased 17-ketosteroids (1). The effect of stress on the 17-ketosteroid excretion varies. For instance, after an operation the 17-ketosteroids rise to a high normal level for 24–48 hours, fall to a low normal level for the next four or five days, and then return to normal (1). Administration of testosterone or ACTH leads to increased 17-ketosteroid excretion. The former compound is metabolized to 17-ketosteroids (11), the latter stimulates the adrenal to secrete more androgens which are then transformed to 17-ketosteroids (12).

In patients who have weakness, fatigue, anorexia and loss of weight, one may suspect adrenal insufficiency. There is a simple procedure by

which one can rule out such a diagnosis, namely the water test which was developed at the Mayo Clinic by Robinson, Power, and Kepler (13) (Table 4). This test depends on the inability of patients with adrenal insufficiency to excrete an extra load of water. If the night specimen is less than any day specimen, the patient can be presumed not to have adrenal insufficiency. Otherwise the test is inconclusive—the patient may have adrenal insufficiency, but he may also have such disorders as nephritis, cirrhosis, or gastro-intestinal disturbances with poor absorption of water. In these cases other procedures will be required to determine the patient's adrenal function.

TABLE 4

Robinson-Power-Kepler Water Test

No fluid after 6 P.M.
Night specimen of urine 10 P.M.–7 A.M.
7 A.M.—20 cc. water/kg. B.W. orally.
Hourly specimens of urine to 12 noon.
Volume of night specimen less than any day specimen, no adrenal insufficiency.

ACTH can be employed to determine adrenal function. There is the four hour test in which one administers 25 mg. ACTH intravenously and measures the fall in eosinophiles four hours later. However, we do not have much faith in this test—too many factors influence the blood eosinophiles and techniques of counting are frequently poor. A better test is shown in Table 5. It is called the 48 hour ACTH test although it takes four days to perform (14). Here the level of 17-ketosteroids is followed as well as the eosinophile count. But again one should not rely on this test alone to make a diagnosis of adrenal insufficiency.

To turn now to the diagnosis of thyroid disorders, the basal metabolic rate has been used for 40 years as a test of thyroid function. When it is performed by a good technician and the patient is in a really basal state, there is no question that the BMR remains an excellent test. However, there are conditions other than Graves' disease in which the BMR is elevated (15) (Table 6). It should also be noted that patients with perforated ear drums or no teeth may give falsely high readings; oxygen may leak out through the ears or around the mouthpiece of the machine. In such instances, there are other tests which may aid in diagnosis. The radioiodine tracer test is based on the ability of the thyroid gland to take up iodine. A dose of radioactive iodine (I^{131}) in aqueous solution

TABLE 5

48-hour ACTH Test

Day 1—24 hour urine for 17-ketosteroids
Day 2—8 A.M. eosinophile count
10 mg. ACTH i.m. q6h x 8
Day 3—24 hour urine for 17-ketosteroids
8 A.M. eosinophile count
Normal Response—Eosinophiles fall more than 50 per cent, 17-ketosteroids rise 7–10 mg.

TABLE 6

Elevated Basal Metabolic Rate

1. Hyperthyroidism
2. Acromegaly
3. Pheochromocytoma
4. Hematologic disorders—polycythemia, leukemia, anemia
5. Dyspnea—congestive heart failure, emphysema
6. Diabetes insipidus
7. Paralysis agitans
8. Essential hypertension
9. Fever
10. Anxiety neurosis

which is colorless and tasteless is administered orally, after which the amount of I^{131} excreted in the urine (16) or accumulated by the thyroid (17, 18, 19) is measured (Table 7). One can also estimate the rate at which the radioiodine is collected by the thyroid (20). With these procedures also there is a wide range of variation and the values found in normal persons as compared to those in hypothyroidism or hyperthyroidism may overlap. However, these tests when performed under proper conditions will reflect accurately thyroid function in 90 per cent of cases. A high uptake of radioiodine by the thyroid is found in conditions shown in Table 8 in which the gland or nodules within the gland are avid for iodine (17). In a few instances after cessation of antithyroid drugs which have been

administered over a prolonged period of time, the gland is depleted of thyroid hormone, and for a week or two the tracer test may indicate an elevated uptake of radioiodine by the thyroid. Following a thyroidectomy for hyperthyroidism, the surgeon usually leaves a small amount of tissue to maintain euthyroidism. This tissue, however, may be hyperplastic and may therefore accumulate radioiodine at a rapid rate even though the patient is perfectly euthyroid clinically.

TABLE 7

Radioiodine Tracer Test

	URINARY EXCRETION (48 HOURS)	THYROID UPTAKE (24 HOURS)
Normal	40–85%	10–60%
Hyperthyroidism	5–50%	30–90%
Hypothyroidism	60–100%	0–15%

TABLE 8

High Uptake of Radioiodine

1. Graves' disease
2. Adenomatous goiter without hyperthyroidism
3. Iodine deficient goiter
4. After withdrawal of antithyroid drugs
5. After thyroidectomy (rate)

There are a number of instances besides hypothyroidism in which the uptake of radioiodine by the thyroid is decreased (17, 18) (Table 9). One may be able to differentiate between primary myxedema and myxedema due to pituitary failure by administering 12.5 mg. thyroid stimulating hormone (TSH) twice daily for five days and doing a radioiodine tracer test at the beginning and end of this period (21). In pituitary myxedema TSH will stimulate a dormant thyroid gland to take up radioiodine, whereas in primary myxedema in which the gland has completely atrophied, TSH has no effect and the I^{131} uptake remains very low. In such cases as sprue or other diarrheas the absorption of radioiodine may be impaired and the test may therefore not be reliable. The test also may be valueless in patients who have received certain drugs or iodine compounds. Desiccated thyroid depresses the pituitary gland with consequent diminished secretion of TSH which results in impaired ability of the thyroid to take up radioiodine (18, 22). One should wait about four weeks after cessation of desiccated thyroid before the radioiodine tracer test will accurately gauge thyroid function. Antithyroid drugs, ACTH (23) cortisone (24), para-aminosalicylic acid, and butazolidine all inhibit radioiodine uptake by the thyroid, and at least two weeks should elapse after these medications are discontinued before a tracer test is requested. Ingestion of iodine compounds enlarges the body pool of iodine so that the radioiodine is diluted and does not completely go to the thyroid, or the gland may become saturated so that the radioiodine may not be accumulated at all. Such substances which interfere with the tracer test are potassium iodide, iodine absorbed from the skin, cough mixtures and vitamin pills which contain iodides, diodrast, priodax, and lipiodol (17, 18, 19). One should defer a tracer test for at least two weeks and preferably six weeks after these compounds have been stopped. Priodax and lipiodol may be retained in the body and may interfere with the radioiodine tracer test for many months or even years.

TABLE 9

Low Uptake of Radioiodine

1. Hypothyroidism
2. Acute thyroiditis
3. Reidel's struma
4. Cardiac decompensation
5. Addison's disease
6. Interference with absorption
7. Drugs
8. Iodine compounds

Another valuable test for assessing thyroid function is the serum protein-bound iodine (25). In this case the values found in the different clinical states are somewhat more distinct (Table 10). Again the administration of iodine compounds (26, 27), including desiccated thyroid (28) and iodothiouracil (29), interferes with the

test and renders falsely high values. TSH given to a patient with pituitary myxedema stimulates a rise in the circulating protein-bound iodine whereas no effect occurs in primary myxedema (21). Mercury interferes with the chemical reaction in the technique used to measure the iodine and therefore the test will produce a low result in patients receiving mercurial diuretics or other mercury compounds. ACTH and cortisone may depress thyroid function and lower the serum PBI (23). The PBI is also decreased in nephrosis, and is apparently lost in the urine with protein although thyroid function is normal (30).

TABLE 10

Serum Protein-Bound Iodine

Normal values—4–8 micrograms %
Hyperthyroidism—8.5–25 micrograms %
Hypothyroidism—0–3.5 micrograms %
Elevated values—iodides, lipiodol, priodax, diodrast, diiodoquin, desiccated thyroid, TSH, iodothiouracil.
Diminished values—mercury salts, ACTH, cortisone, nephrosis

There is one more clinical disorder which is worth consideration. The exact incidence of pheochromocytoma is unknown, but it probably occurs more commonly than is generally believed because it is not often sought out. In Table 11 are shown the procedures for the histamine and benzodioxane tests which can be performed in the office. For patients with paroxysmal hypertension, the histamine test is indicated (31, 32). Histamine stimulates the adrenal medulla to secrete epinephrine, and administration of it to a person with a pheochromocytoma may reproduce a characteristic episode of hypertension. There should be a greater elevation in blood pressure than that produced by the cold pressor test. If the patient does not have the same symptoms after the injection of histamine as he has in a spontaneous episode, one should doubt the presence of pheochromocytoma even though the blood pressure rises markedly. For the diagnosis of pheochromocytoma in patients who have sustained hypertension this test is of no value and may be dangerous to perform. In such cases the benzodioxane test is useful (33, 34). One should wait a minute or two after venipuncture before injecting the material so that the blood pressure will be perfectly stable. The fall in blood pressure should be measured below the lowest previous level recently observed in the patient, not necessarily the level obtained at the beginning of the test. This test should be employed in all cases of "essential hypertension," and especially where there are minimal pathological changes in the eye grounds and the kidneys, if one is to discover pheochromocytomas. However the test may give a falsely positive result in patients with uremia; and it may be negative in cases of pheochromocytoma so that one may be compelled to explore the abdomen if the clinical picture is suggestive of such a tumor.

TABLE 11

Pheochromocytoma

Histamine Test—0.025 mg. i.v.
Marked elevation of B.P. in 2 minutes with reproduction of symptoms in previous episodes.
Benzodioxane Test—20 mg. i.v. in 0.2% solution.
Significant fall of B.P. in 2–3 minutes below lowest previous level.

In conclusion, one should seldom if ever rely on a single laboratory test alone to make a diagnosis. On the other hand, to order a battery of tests, the results of which may look well in the patient's record, is not only poor medical practice but costly to the patient as well. The history and clinical findings together with tests judiciously chosen to assess the functions of endocrine glands in particular cases will lead to accurate diagnosis and rational therapy of endocrine disorders.

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THE TREATMENT OF BENIGN UTERINE BLEEDING WITH INTRA-CAVITARY RADIATION[1]

J. MASON HUNDLEY, JR., M.D.,[2] WILLIAM K. DIEHL, M.D.,[3] AND THEODORE KARDASH, M.D.[4]

The purpose of this paper is to evaluate our results obtained by the treatment of benign uterine bleeding with intra-cavitary radiation.

What Are the Indications for Intra-Cavitary Radiation

1) The patient should be at least 40 years of age; further childbearing not to be considered.
2) Conservative measures, that is, hormonal therapy and curettements having been carried out unsuccessfully on the youngest members of the group.
3) Patients that are poor operative risks due to hypertension, cardiac disease, marked obesity and any debilitating condition that would be an operative procedure hazard.
4) Also patients in or near the menopause with small uterine fibromata, preferably excluding the submucosal type.

What Are the Contraindications for Intra-Cavitary Radiation

1) Early age, under 40 years as a rule.
2) Pelvic inflammatory disease, which may develop parametrial abscess or peritonitis.
3) Ovarian tumors.
4) Large uterine myomata; some radiate such tumors, the size of a 3 months pregnancy. We prefer surgery as complete regression may not take place and bleeding continue; also degeneration may set in, i.e., cystic, hyaline or rarely sarcomatous changes.

Another type of uterine bleeding that has not received sufficient attention is that due to systemic diseases, more commonly seen in aplastic anaemias, essential and secondary thrombocytopenia purpura and constitutional thrombopathy (von Wilebrandt's Disease); the diagnosis of these blood dyscrasias can be accomplished with the aid of a good hematologist. Barnes is of the opinion, from his observations, that an individual with hemorrhagic dyscrasias will not develop hypermenorrhagia without the intermediary of a local pelvic abnormality. His belief was based on intra-abdominal examinations of patients with thrombocytic purpura at time of splenectomy when he found pelvic pathology in the majority of cases. A frequent finding was multiple cysts of the ovary. It is obvious that a close cooperation between the gynecologist and hematologist is necessary.

Technique of Intra-Cavitary Radiation

A careful dilatation and curettage is performed to rule out malignancy. If none is found 100 mg. of radium, in tandem, is inserted into the uterine cavity, the filtration being 1 mm. of platinum and irridium; a dosage of 2000 mg. hrs. is delivered. If malignancy is found multiple applicators of radium are used so that the cavity is well packed; a dosage of 4500 mg. hrs. is delivered. Six to eight weeks later a panhysterectomy is done. We reported, recently, a 5 year survival rate of 84.4 per cent for adenocarcinoma of the body by this combination method of therapy.

The action of the ray, in benign bleeding, is two-fold; the major effect is on the ovary caus-

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[2] Professor of Gynecology, University of Maryland School of Medicine.

[3] Associate Professor of Gynecology, University of Maryland School of Medicine.

[4] Instructor in Gynecology, University of Maryland School of Medicine.

ing follicular elements to undergo regression; whereas the minor action is on the endometrium causing vascular obliteration. Superficial myometrial necrosis may occur.

The vast majority of the radiated uteri show very little evidence of gross pathology. Menopausal symptoms are no more severe than those occurring with the physiological process. One would think that surgical oophorectomy, with sudden hormonal imbalance, would be more provocative of a severe climacteric than the rather slow ovarian regression produced by radiation.

An observation found in the literature is to the effect that marked menorrhagia, or flooding, in the climacteric bespeaks increased incidence of corporeal carcinoma developing at a later date. In our experience copious bleeding is frequently seen at the climacteric with subinvoluted, retroverted uteri, resulting from multiple childbearing. In our recent study of body carcinoma we found 64.6 per cent of the patients had borne children. If excessive climacteric bleeding is due to subinvoluted uteri, caused by multiple pregnancies, then we are in accord that malignancy may develop more frequently when preceded by this bleeding manifestation.

An analytical evaluation of 225 patients receiving intra-cavitary radiation for benign uterine bleeding now follows:

For the detailed study 50 patients were discarded due to variations in radiation dosage. The remaining 175 all received the same radium dosage, namely 2000 mg. hrs; these patients have been followed for a sufficient length of time so that the results are of clinical significance.

The social status of the 175 patients showed that 170 were married and only 5 were single. Only 18 were colored although our out-patient clinic is predominantly colored. A partial explanation for this may be due to the great frequency of pelvic inflammatory disease and myomata which necessitates hysterectomy often at an earlier age.

An analysis of the age groups is as follows:

11 patients in the 4th decade.
113 patients in the 5th decade.
48 patients in the 6th decade.

It is interesting to note that 91.9 per cent of the patients treated were between 41 and 60 years of age.

Types of Endometria Found

The endometria were examined in every case and various patterns were found. It was earlier thought that hyperplasia of the endometria due to a persistent follicle with hyper-estrinism was the most frequent cause of benign, painless uterine bleeding. We now know that although proliferative types, which include hyperplasia are the most frequent, bleeding does occur from a secretory as well as from an atrophic endometria. Polyps were encountered in 9 patients.

Uterine myomata were observed as an associated finding in 37 patients, 92 patients in the group showed evidence of estrogenic activity as is evidenced by the findings of proliferative and hyperplastic endometrium. This is a rather high incidence considering the fact that a large number of these patients were in the post-menopausal group. Of the 51 patients with hyperplasia, 13 were associated with fibromata. Such evidence of possible hyperestrinism is not uncommon.

An analysis of the duration of bleeding (pre-radiation) is of interest for we know that such a condition may exist for months, the common etiological factors being adenocarcinoma, polyps, and most frequently hyperplasia of the endometrium. Our study showed a wide variation of duration of bleeding from 2 weeks to 18 months. It was either intermittent, or less frequently, continuous in type and as a rule more profuse at the menstrual time and was painless.

A positive diagnosis to rule out malignancy is most essential. Age plays no role in precluding a diagnostic dilatation and curettage. Malignancy may occur at any time. We encountered an adenocarcinoma of the body in a girl 23

years of age when we were sure she had hyperplasia.

How Effective is Intra-Cavitary Radiation

This is shown by the duration of bleeding post-radiation. It is here noted that there was immediate cessation in 117 patients; in 7 patients bleeding lasted for 2 weeks; 33 patients had one normal period; 8 had four successive normal periods and one patient menstruated normally for 18 months.

Radiation Failures

In this series of 175 patients there were only 9 failures, 6 due to associated myoma and 4 of these were operated upon. The slight bleeding in one ceased and no operation was required; the remaining patient developed an adenocarcinoma 9 years after the intra-cavitary radium. In the remaining 3, the failures were due in 1 to prolonged stilbestrol therapy, endometrium being markedly proliferative; in another to either adrenal stimulation or rebirth of the follicular system; she required an additional 1200 mg. hrs. of radium 18 months following the initial 2000 mg. hrs. The last patient had 2 subsequent negative curettements with cure and no return of bleeding on a follow-up period of 9 months.

Rate of Radiation Failures

The incidence of uncorrected failures is 5.1 per cent. If the 6 patients with fibroid disease had been excluded, due to expectant cure being remote, the incidence of failure is 1.7 per cent; this gives an incidence of good end results and cure in 98.3 per cent.

Symptom Free Follow-up

70 patients—6 months to 5 years.
64 patients—5 years to 10 years.
32 patients—10 years and over.

Mortality and Morbidity Rate

No deaths occurred in this series. One patient developed a left parametrial infection which subsided spontaneously.

A number of prominent gynecologists seem to endorse the belief that radiation increases the incidence of malignancy; they report the appearance of corpus carcinoma developing from 2 years up to 11 years following the initial curettement and radiation. It would seem that the growths detected within two years probably existed at the time of the first investigation. It would be logical to assume that the incidence would be decreased when one considers the atrophic state of the endometrium following radiation.

We are not in accord with the view that radiation tends to increase the incidence of corporeal cancer for we encountered only one malignancy in this series of 225 patients; this developed 9 years following radiation and this incidence is far less than the normal expectancy.

A vital statistical study has been carried out on this series by Dr. Ross Cameron, Chief of the Cancer Division of the Public Health Department, State of Maryland. I quote from his report: "It has been estimated that the normal expectancy of cancer in persons in the above age group is 2.5 per 100 population. In this series there was one case in 225 persons, a rate of 0.44 cases per 100 population, which is significantly less than the normal expectancy."

It seems clear, therefore, that in our patients treated with radium there was no increase in the number of cancer cases above the normal expected rate; on the contrary, the rate was lower by 75 per cent than expected.

Some are of the opinion that the presence of the estrogenic stimulation from the waning radiated ovary plays a role in malignant development of the endometrium. Viable follicular elements do exist after intra-cavitary radiation of 2000 mg. hrs. as we will show later, but would play a minimal role in such development.

Peightal and others believe that corpus carcinoma following surgical ablation of the ovaries is exceedingly rare due to the complete removal of estrogenic stimulation. This theory is not

valid since the adrenal gland is another source of estrogenic stimulation.

As we stated above in our series of 175 patients, 117 of these ceased bleeding abruptly after intra-cavitary radiation of 2000 mgh. From this fact one would surmise that complete and prompt disintegration of the follicular apparatus had taken place. From histologic studies of ovaries removed after exposure to 2000 mg. hrs. of radium, fairly normal lutein and follicular elements were observed, the interval between radiation and operation varying from 4 weeks to 18 months. As expected the longer the interval the greater the regressive change. It is difficult to reason that these waning cells could be a prime factor in malignant development as suggested by some observers.

Primordial follicles were observed in the radiated ovary and appeared nearly similar to non-radiated follicles. There is no doubt that complete destruction of the follicle system does not occur promptly after radiation but varying lengths of time are necessary. It is possible that radiation causes sufficient cellular changes to induce hormonal suppression, thus causing cessation of bleeding.

Added evidence that there is not abrupt cessation of follicular activity seems to be demonstrated by the delayed onset of hot flushes, occurring in 4 to 6 weeks, if at all.

We must not over-look the fact that the adrenal cortex is a source of estrogen which comes into play with abeyance of the ovarian source. A recent communication from Dr. Emil Novak is here of especial interest as it concerns the proliferative changes of the endometrium, probably due to estrogenic stimulation arising in the adrenal. He relates a patient with benign uterine bleeding who had a bilateral oophorectomy performed a number of years ago; after a long period of amenorrhea, bleeding returned. She was then seen by Dr. Novak who did a diagnostic dilatation and curettage and found a marked hyperplasia of the endometrium. A laparotomy followed and after a careful search no ovarian tissue was discovered nor was a granulosa cell tumor found. As the uterus was definitely enlarged it was removed. Marked uterine fibrosis, with thickening of the uterine wall and extensive hyperplasia of the endometrium was found.

In Conclusion

We have presented a series of patients that have been successfully treated with intra-cavitary radiation of 2000 mg. hrs. There has been no mortality and only transient sequelae such as leukorrhea, which, in the majority of patients, was minimal.

The uncorrected failures show an incidence of 5.4 per cent; if the 6 patients with fibroid disease are excluded due to expectant cure being remote, the incidence of failure is 1.7 per cent, resulting in a clinical cure in 98.3 per cent of the cases.

We have shown histologically that in spite of the abrupt cessation of bleeding following radiation fairly normal follicular elements are still present. As time advances there is a gradual regression until a corpora albicans is developed. We do not feel that estrogenic effect from these waning follicular elements plays a role in the malignant development. We have encountered one adenocarcinoma arising 9 years after intracavitary radiation for bleeding due to a submucous myoma. The reason for the abrupt cessation of bleeding is difficult to explain. It is possible that radiation caused sufficient cellular changes to induce an hormonal imbalance with resulting endometrial suppression, thus causing cessation of bleeding.

Our vital statistical study showed a decrease of expected incidence of corpus carcinoma and we feel that radiation plays no role in later malignant development. Some recent observers feel that benign uterine bleeding may arise on a psychological basis. A most careful elimination of hormonal and organic factors would be necessary before such a deduction would be possible.

Vaginal or abdominal panhysterectomy is pre-

ferred by a number of gynecologists on the assumption that ovarian function is preserved and that the increased incidence of corporeal carcinoma is a real factor. From our study we do not feel that these facts warrant the performance of such major surgery.

The sine qua non is the proper selection of patients for this type of therapy. Of the patients treated 91.9 per cent were between 41 and 60 years of age.

The severity of the radiation menopause was not singularly different from the physiological one.

In spite of arguments, pro and con, we are enthusiastic supporters of this type of therapy and feel that it is of the greatest value in selected cases.

ARTHRITIS AND RHEUMATISM

HARRY F. KLINEFELTER, JR., M.D.

This group of disorders comprises an important and increasing cause of disability in our population and constantly drains our social and economic resources. Because these diseases are usually chronic, slowly progressive and undramatic, their victims are infrequently admitted to general hospitals. As a result, the attention of research workers and teachers of medical students has not been focussed on these conditions; consequently, the practicing physician has received little training and instruction in the care of these patients.

Although a feeling of futility and defeat pervades the attitude of many doctors when a patient with "arthritis" is encountered, much can be done to alleviate suffering and improve the person's mental and physical well-being. All that aches is not arthritis and careless use of the word has unnecessarily incapacitated many individuals. While the etiology of most of the rheumatic diseases is unknown and, therefore, cure cannot be achieved, most patients can be so benefitted that they can live useful lives and not become economic liabilities.

The Arthritis and Rheumatism Foundation was started five years ago by a nation-wide group of interested doctors and laymen. It is analogous to national organizations working in other fields of medicine and is financed by voluntary contributions. The purpose of the Foundation is to focus the attention of the public and the medical profession on this wide field of disease states, as yet largely unexplored and unknown.

The National Foundation, with headquarters at 23 West 45th Street, New York City (36), works on a nation-wide basis and through local chapters, of which there are now thirty-five. These chapters are organized in any area, intra- or interstate, where there is sufficient need and interest, and each chapter has its own constitution and governing body. The Maryland Chapter of the Arthritis and Rheumatism Foundation, with headquarters at 1116 Fidelity Building, Baltimore (2), Maryland, was formed in 1949 and has been gradually broadening its activities each year.

The National Foundation performs the following functions:

1. Stimulates organization of new chapters and generally supervises the work of the chapters.
2. Prepares booklets, films, press releases, radio and television programs for education of the public and the patient.
3. Supervises and directs the annual solicitation of funds, which takes place in late November and early December.
4. Awards fellowships to investigators in the basic medical sciences. These doctors may work at any one of the recognized medical centers in the United States.
5. Publishes a monthly "Bulletin on the Rheu-

matic Diseases," from September through May. This is written by authorities in the field of rheumatic disease and keeps the practicing physician informed of the latest developments.

6. Allocates cortisone, donated by one of the drug houses, to the various chapters for use by indigent patients.

The Maryland Chapter of the Arthritis and Rheumatism Foundation performs the following functions:

1. Aids the expansion of the existing arthritis clinics at The Johns Hopkins and University Hospitals.
2. Conducts, through its Medical and Scientific Committee, clinics in those counties whose medical societies have desired this service. Only patients referred by their local physicians are examined and only consultation service is rendered. Such clinics are now held in 17 counties, every three to four months, and will be started in the other counties if their local medical societies so desire.
3. Conducts, through its Medical and Scientific Committee, consultation clinics in other hospitals in the metropolitan area when so requested.
4. Educates the public in the importance of early diagnosis, adequate medical attention and the economic burden of these diseases.
5. Informs the medical profession of the latest developments. The "Bulletin on Rheumatic Diseases" will be mailed without charge to any physician requesting it from the Baltimore office. A joint meeting with the City Medical Society will be held on October 16, 1953, at which time two eminent men in the field will discuss certain aspects of rheumatoid arthritis. A Conference for Industrial Physicians will be held on September 22, 1953, at which there will be three addresses on various aspects of the rheumatic diseases.
6. Offers fellowships to physicians to enable them to get clinical training or do research in these diseases.
7. Encourages the interest and help of women, through the Women's Committee of the Maryland Chapter, whose chairman is Mrs. Noble C. Powell. The women will have many and varied activities, including fund raising, publicity, education, clinic work, administration, home care, occupational therapy and rehabilitation.
8. Organizes Mobile Units, one of which will be in operation in the Baltimore area in the fall. This Unit will be manned by a competent Physiotherapist and will visit indigent patients in their homes.
9. Encourages the rehabilitation of arthritic and rheumatic patients, by stimulating the interest of the medical and nursing professions, industry, and various civic and lay organizations.

Although the major part of the Maryland Chapter's organization and activities has been in Baltimore, some excellent work has been done in the counties. It is hoped and expected that every county will form its own organization, composed of doctors, laymen and women.

The importance of the problem has been recognized by the United States Public Health Service. In 1950, the 81st Congress, through Public Law #692 provided for the establishment of a research institute for the study of Arthritis and Metabolic Diseases. The National Institute of Arthritis and Metabolic Diseases (NIAM) was thus created and twenty-five beds are reserved for studying rheumatic diseases. Patients will not be charged professional fees and will be referred from other institutions or by physicians in private practice.

The NIAM also has extramural programs consisting of research grants, research fellowships and clinical traineeships. Physicians desiring further information concerning these programs should write to the NIAM, Bethesda (Maryland). Dr. Joseph J. Bunim is Chief of the Arthritis Division of the NIAM.

The ARF and the NIAM freely and frequently exchange information and work together to achieve a common goal, namely, better control of the rheumatic diseases.

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LESLIE E. DAUGHERTY, M.D.

Journal Representative

PRESENT TRENDS IN CANCER RESEARCH AND THERAPY[1]

(A summary)

FRANK H. J. FIGGE, PH.D.[2]

Cancer is one of our most baffling diseases and is attracting more and more attention. Many lines of cancer research are being pursued at present, and hormone imbalance theories are most popular at present. These relate the cause of cancer to hormonal imbalances or maladjustments of the neurohormonal intercommunication systems. The partially successful methods of treatment based on our heroic attempts to modify hormone interrelationships are also very popular at present.

In this connection, three things need to be stressed: (1) Cancer is a disease that should be classified with other constitutional diseases such as obesity, diabetes, and arteriosclerosis, and so forth. These all appear to be related in some way to interacting environmental and genetic factors. (2) The experimental embryologists have shown that these environmental and genetic factors are also responsible for the intercommunication between cells and tissues that initiate and regulate the very early stages of growth differentiation and organization. In these very early stages of development, organization and growth are controlled by simple methods of intercommunication such as diffusion gradients. (3) The process of development of growth and maintenance of organization does not stop at birth but continues with a definite timetable. In the adult, the elaborate and complex neurohormonal intercommunication systems still regulated by internal action of genes interacting with environment continue to maintain the organization of cells and tissues in the body. Wholeness of parts, sex tract changes, and other growth processes are also controlled by this same set of systems.

It is thought that slight defects occurring at any stage of development or defects produced by artificial means or environmental conditions may give rise to a state of stress or overwork on the part of organs or tissues involved in long-term attempts to compensate for such defects. As a result, either the compensating hyperactive endocrine gland or the overworked target organ breaks down and undergoes malignant transformation. After this transformation has occurred, it is doubtful that therapy designed to establish normal or even abnormal hormonal imbalances would cause such malignant cells to return to normal. The impressive but temporary results of treatment of prostatic cancer with orchidectomy and estrogens; and of treatment of breast tumors with testosterone and massive doses of estrogen; or these and other kinds of tumors with adrenalectomies and/or hypophysectomy are encouraging. However, the results indicate only that many or most of the malignant cells can still respond to hormone intercommunication, but ultimately they lose this ability or the cells that cannot respond become predominant, and finally, the most drastic hormone therapy becomes ineffective.

As a result of these theories and recent investigations, we are able to state, however, that such hormones as estrogens are not in themselves carcinogenic. There are now many instances where estrogens have been used to temporarily inhibit or suppress cancer in human subjects and to prevent development of cancer in animals in which hormonal imbalances have been induced artificially. Thus, we may state that it is the hormonal imbalance which has been responsible for the induction of cancer and not the estrogen which was used in massive doses to establish relatively great hormonal imbalances in susceptible animals. Our real hope in this field in the future lies in further research. If these hypotheses

[1] Presented at a meeting of the Allegany-Garrett County Medical Society, May 15, 1953.

[2] Professor of Anatomy, University of Maryland School of Medicine.

are true, we should ultimately develop methods of detecting the subtle hormonal imbalances before they cause malignant transformation. The next step would be to develop methods of correcting the imbalance or maladjustment in the intercommunicating systems before the compensating mechanisms have become over-stimulated or overworked to the point that they transform to malignant cells. Then, our slogan would not be "Detect cancer at an early stage so that it may be more adequately and successfully treated" as it is now, but rather, "Discover cancer-producing maladjusted states, correct them, and prevent cancer before it develops." There are many of us who believe that this great goal can and will be achieved not in the next generation, but in this.

BALTIMORE CITY MEDICAL SOCIETY

CONRAD ACTON, M.D.

Journal Representative

The Chairman of the Program Committee, Doctor Arthur Weinberg, is lining things up for the fall season. The October meeting will be a symposium on arthritis. The November and December meetings are not sufficiently in order to be announced now, except that the symposium type of program will be continued.

The Joint Anesthesia Study Committee of the Baltimore City Medical Society and the Baltimore City Health Department has organized. The results of the organization have not been made available.

FIRST FALL MEETING—BALTIMORE CITY MEDICAL SOCIETY

WETHERBEE FORT, M.D., *President* — EDWARD F. COTTER, M.D., *Secretary*
LEWIS P. GUNDRY, M.D., *Vice-President* — ROBERT C. KIMBERLY, M.D., *Treasurer*

Friday, October 16, 1953, 8:30 p.m.

CO-SPONSORSHIP WITH THE MARYLAND CHAPTER OF THE ARTHRITIS AND RHEUMATISM FOUNDATION

8:45 p.m.

Medical Aspects of Rheumatoid Arthritis. Joseph J. Bunim, M.D., Chief, Arthritis and Rheumatism Branch, National Institute of Arthritis and Metabolic Diseases, National Institutes of Health, Bethesda, Maryland; Associate Professor of Medicine, The Johns Hopkins University School of Medicine.

9:30 p.m.

The Restoration of Musculoskeletal Function in Rheumatoid Arthritis. Robert L. Preston, M.D., Assistant Clinical Professor of Orthopedic Surgery, Postgraduate Medical School of the New York University-Bellevue Medical Center, New York City.

10:15 p.m.

Question period.

CALVERT COUNTY MEDICAL SOCIETY

PAGE C. JETT, M.D.

Journal Representative

The new Calvert County Hospital erected in Prince Frederick was dedicated on May 16, 1953. The dedication exercises were quite impressive, being highlighted by a very appropriate talk by Dr. Louis Krause linking the parable of the Good Samaritan with hospital care. Governor Theodore McKeldin, Bishop Noble C. Powell, Reverend Lowell S. Ensor, Mr. Carl F. Wallace, Reverend Louis Albert, and others participated in the program.

The building is a one story, brick and masonry structure and was carefully designed for maximum comfort and service to the patients with a minimum of demand upon the nursing staff. The hospital is rated as a 30-bed hospital but will accommodate about 50 patients, including infants, without crowding. Provision is also made to add six extra beds without cost if they are required, and an additional wing to accommodate 20 beds can be added when needed without increasing service facilities now being provided.

The hospital is modern in every way, having a toilet and bedpan washer adjoining every room and oxygen piped to every patient's room. The operating suite and delivery suite are separated, but each completely equipped, including a new x-ray unit, along with a portable unit. The cost of the hospital was between $780,000 and $800,000.

The grounds are also unusually attractive and are being beautified by the aid of some of the finest horticulturists from the Department of Agriculture who are taking over the project as a hobby.

The cost was met by the use of funds collected from slot machine licensing and matched with Hill-Burton federal funds.

Calvert County now offers the very latest in medical facilities for its residents and physicians.

FREDERICK COUNTY MEDICAL SOCIETY

JESSE S. FIFER, M.D.

Journal Representative

LIBERTYTOWN PHYSICIAN STILL PRACTICING AFTER 60 YEARS

The following article appeared in the "Frederick News and Post:"

On May 3, 1893, a serious purposeful young man emerged from the classic halls of the College of Physicians and Surgeons at Baltimore, a graduate in medicine. He immediately returned to his native Libertytown to practice.

Today, at the age of 85 years, he is deemed Maryland's oldest still active general practitioner.

He is Dr. Ira Washington Beall, affectionately regarded throughout his wide community as purveyor of health, harbinger of comfort and by one and all a family friend.

For sixty years, Dr. Beall has been practicing at Libertytown and still retains a daily schedule, although not quite to the extent of many earlier years gone by. Like others of the old faithful and almost legendary "country doctors" he foresook the saddle and finally the buggy in the early 1900's and ever since 1910 has made and continues to make his calls by automobile. He retains—now—a vivid recollection of his first car. It was second-hand model of a 1907 Ford. Of course, there have been several replacements.

Maintains Daily Schedule

Hale, hearty and still enthusiastic. Dr. Beall's energy is offset relatively little by his years. His daily office schedule remains unchanged and he still responds to outside calls. His only concession to time is some aversion to night demands unless emergency requires.

Throughout his long career, Dr. Beall has been noted for tenacity to the high ideals and rigid ethics of his profession. Strictly adhering to these principles he lists his patients among all walks of life, white and colored, many times without compensation or reward other than the satisfaction of duty faithfully performed.

That same rugged physical constitution required of a rural doctor has been evidenced by Dr. Beall throughout his long career and carries over until this day. His eyesight is perfect, requiring no glasses and his hearing, Dr. Beall says, is actually above normal. As to personal habits, his regimen has never varied, and Dr. Beall adds: "I've never tasted beer."

Is Native of Libertytown

And now for a little background. Born in Libertytown, a son of Washington and Jane Beall, the doctor received his early education in the public schools. Afterward, he taught for three years at Burkittsville, but his goal delved deeper into the

field of human service. He entered the College of Physicians and Surgeons at Baltimore, was a model student, and graduated May 3, 1893, one of a class of 179, the largest in the college's history.

During the preliminary years of his career, Dr. Beall applied himself assiduously toward establishing his practice and he soon became a well-known personality throughout the wide countryside. Then came another outstanding event which was destined to round out his remarkable service and life thus far. That was his marriage on December 22, 1898 to the vivacious Miss Rosa K. Lohr, of Thurmont, daughter of Simon and Frances Anna Lohr, the wedding taking place at St. John's Lutheran Church in Thurmont. Dr. Beall and his bride, a former student at Keymar College at Hagerstown, later to be known as the Washington County Hospital, moved into home and office at Libertytown, where they have since remained. They never saw fit to make a change. They had no children, Dr. Beall's profession remaining his obsession, and the still sprightly Mrs. Beall actively retaining her self-styled characteristic as being "very domestic."

As one can well surmise, Dr. Beall is rich with reminiscence. Wintry storms and summer's torrid heat were faced with the same determination. No call for aid went unanswered. Many a fevered brow was soothed and he ministered, often under great difficulties, when a new life was born. Dr. Beall estimates that he has ushered some 4,000 babies into the world, an average of eighty a year for a period of half a century. In more recent years, he has discontinued obstetrics.

Married Nearly 55 Years

Dr. and Mrs. Beall are inseparable—have been for the nearly fifty-five years they've been married. Except on professional calls, they are never seen

Courtesy of Frederick News and Post

I. W. Beall, M.D.

apart. Mrs. Beall's emphatic comment on this connubial devotion was simply this: "We're happier than ever!"

In fact, Mrs. Beall is taking the initiative in observing her husband's 60th anniversary in practice. Sunday, May 3, marks that event, and Monday, May 4, is Mrs. Beall's birthday—she coyly refrained from saying which. The two anniversaries, however, will be observed when Mrs. Beall will be hostess at an appropriate dinner party Monday at the Green Parrot in Emmitsburg.

Dr. and Mrs. Beall are both devout Lutherans and frequently attend church in Frederick. There being no Lutheran church in Libertytown, they also enjoy visiting Lutheran churches in various other cities throughout the area.

Dr. Beall has no particular hobby these later years, other than his work and prizes highly his membership in the Maryland State and Frederick County Medical Associations. In this connection it is well to mention that his spouse is just as proud of her domestic inclinations and accomplishments and like "the doctor," Mrs. Beall is the picture of health.

Erect, jaunty and still with a spring in his step, Dr. Beall continues to look to the future. He has no intention of retiring from practice. In the final analysis he tersely enunciated his own philosophy concerning the future in these blunt words:

"I'd rather wear the knees than the seat out of my breeches!"

No more need be said.

ANNOUNCEMENT

THE DOCTOR JULIUS FRIEDENWALD MEMORIAL LECTURE

will be given by

Dr. Richard K. Gilchrist,

Professor of Surgery, University of Illinois, College of Medicine

on

The Principles in Surgical Treatment of Carcinoma of the Colon

Thursday, November 5th, 1953, 8:30 P.M.

At the University of Maryland School of Medicine
Chemical Hall—Main Building
N. E. Cor. Lombard and Greene Sts.
Baltimore

Library

"Books shall be thy companions; bookcases and shelves, thy pleasure-nooks and gardens." *ibn Tibbon*

VISITORS FROM OVERSEAS

The Library has been visited recently by three foreign librarians: Dr. Elisabeth van der Berg from the University of Leyden, Holland; Mr. Yoshinari Tsuda of the Keio University Medical School in Tokyo, and Mr. Harry Erlam of the University of Otago Medical School, Dunedin, New Zealand.

Under a fellowship program sponsored by the Medical Library Association, these librarians are given an opportunity to study in a library school in this country and to visit various medical libraries to observe methods and techniques.

SUMMER READING

The Library now has on display a sampling of books from the non-medical collection left by Dr. John Ruhräh. Those in the exhibit case at present include choice examples of books on travel, art and archeology, biography, and fiction, and reflect the discriminating and diversified tastes of Dr. Ruhräh. They are all available for borrowing. His fine collection of medical books is of course a valuable part of the Library.

MEDICAL LIBRARY ASSOCIATION

The annual meeting of the Medical Library Association was held this year in Salt Lake City, June 16th–19th. The Librarian, Miss Helen Wheeler, represented this Library at the meeting, and presented her report as Archives Curator of the Association at the business session.

A SELECTED LIST OF PUBLICATIONS RECENTLY ADDED TO THE LIBRARY

American Academy of Ophthalmology and Otolaryngology, Ophthalmic pathology. 1952.
*American Dental Association, Accepted dental remedies. 1953.
*American Pharmaceutical Association, National formulary. 1950.
Anderson, W. A. D., Pathology. 1948.
Association for Research in Nervous and Mental Disease, Psychiatric treatment. 1953.
*Association of American Medical Colleges, Fellowships, funds and prizes. 1949.
*Beck, H. G., Collected writings. 1953.
Behrman, H. T., The scalp in health and disease. 1952.
Bernstine, J. B. and Rakoff, A. E., Vaginal infections, infestations and discharges. 1953.
*Bonola, A., La periartrite della spalla. 1952.
*Bourne, G., Introduction to cardiology. 1949.
Brazier, M. A. B., The electrical activity of the nervous system. 1953.
Brock, R. C., Lung abscess. 1952.
Brown, H. R. et al., Clinical ballistocardiography. 1952.
*Brown, R. C., Reproduction and survival. 1948.
*Buxton, P. A., The louse. 1946.
Clark, A. J., Applied pharmacology. 1952.
Conn, H. F. (ed.), Current therapy. 1953.
Cowdry, E. V., Problems of ageing. 1952.
*Curran, D., Psychological medicine. 1949.
Cutting, W., Annual review of medicine. 1952.
*Deller, F. C., Modern management of gastric and duodenal ulcer. 1948.
De Muylder, C. G., The "neurility" of the kidney. 1952.
*Didusch, W., Collection of urogenital drawings. 1952.
Directory of Medical Specialists, volume 6. 1953.
*Dubos, R. J., Bacterial and mycotic infections of man. 1952.
Duke-Elder, S., Textbook of ophthalmology, volume 5. 1952.
Duncan, G. O., Diseases of metabolism. 1952.
*Ewen, J. H., Mental health. 1947.
Forbus, W. D., Reaction to injury, volume 2. 1952.
Fox, S. A., Ophthalmic plastic surgery. 1952.
*Friedman, M., Functional cardiovascular disease. 1947.
*Friel, A. R., Zinc ions in ear, nose and throat work. 1948.
*Gate, J. and Rousset, J., La lèpre. 1952.

* Indicates gifts.

Gifford, S. R., Textbook on ophthalmology by F. H. Adler. 1953.

Gnudi, M. T. and Webster, J. P., The life and times of Gaspare Tagliacozzi. 1950.

*Haas, S. V., Management of celiac disease. 1951.

Hampton, O. P., Wounds of the extremities in military surgery. 1953.

Hardy, J. D., Surgery and the endocrine system. 1952.

*Hern, K. M., Physical treatment of injuries of the brain. 1947.

*Hospital Council of Greater New York, Hospital staff appointments of physicians in New York City. 1951.

Howorth, M. B., A textbook of orthopedics. 1952.

*Jong, H. H. de, Experimental catatonia. 1945.

Keele, K. D., Leonardo Da Vinci on the movement of the heart and blood. 1951.

*Klyne, W., Practical chemistry for medical students. 1946.

*Kopetzky, S. J., Deafness, tinnitus and vertigo. 1948.

*Kyser, F. A., Therapeutics in internal medicine. 1950.

Lewis, G. M., Practical dermatology for medical students and general practitioners. 1952.

*Maryland State Planning Commission, Report of the Committee to review the medical care program. 1953.

Master, A. M., Normal blood pressure and hypertension. 1952.

*Morison, R., Introduction to surgery. 1948.

Moseley, H. F., Textbook of surgery. 1952.

Moss, E. S. and McQuown, A. L., Atlas of medical mycology. 1953.

Munro, D., The treatment of injuries of the nervous system. 1952.

Najjar, V. A., Carbohydrate metabolism. 1952.

National Association for Mental Health, Psychiatric clinics directory. 1952.

*O'Connor, W. A., Psychiatry. 1948.

*Osmond, T. E., Aids to diagnosis and treatment of venereal disease. 1946.

*Palyi, M., Compulsory medical care and the welfare state. 1949.

Patty, F. A., Industrial hygiene and toxicology, volumes 1 and 2. 1948, 1949.

Potter, E. L., Pathology of the fetus and the newborn. 1952.

Ranson, S. W., Anatomy of the nervous system. 1953.

Reynolds, S. R. M., Physiology of the uterus. 1949.

*Rosen, H., Hypnotherapy in clinical psychiatry. 1953.

Rossenda, F. and Strata, A., La spalla paralitica. 1952.

Sachs, E., History and development of neurological surgery. 1952.

Shands, A. R., Jr., Handbook of orthopaedic surgery. 1952.

Smith, H. W., The kidney; structure and function in health and disease. 1951.

*Somervill, T. H., Surgery of the stomach and duodenum. 1948.

Strunk, F. R., Inventory of social and economic research in health. 1953.

Talbott, J. H., Gout and gouty arthritis. 1953.

*Te Linde, R. W., Operative gynecology. 1953.

*Thompson, C. B., Our common neuroses. 1952.

Thorek, P., Diseases of the esophagus. 1952.

*Todd, J. W., Rational medicine. 1949.

*U. S. Children's Bureau, Residential treatment centers for disturbed children. 1953.

U. S. President's Commission on the health needs of the nation, Building America's health, 5 volumes. 1953.

White, J. C., Smithwick, R. H., and Simeone, F. A., The autonomic nervous system. 1952.

*Widdess, J. D. H., Account of the schools of surgery, Royal College of Surgeons, Dublin. 1949.

Wiener, M. et al., Progress in ophthalmology and otolaryngology. 1952.

*Wikler, S. J., Your feet are killing you. 1952.

*Wofinden, R. C., Health services in England. 1948.

World list of scientific periodicals. 1952.

1952 Year book of dentistry.

1952 Year book of dermatology and syphilology.

1952 Year book of drug therapy.

1952 Year book of endocrinology.

1952 Year book of eye, ear, nose and throat.

1952 Year book of neurology, psychiatry and neurosurgery.

1952 Year book of obstetrics and gynecology.

1952 Year book of orthopedics and traumatic surgery.

1952 Year book of pathology.

1952 Year book of pediatrics.

1952 Year book of urology.

*Zondek, B., The antigonadotropic factor with consideration of the anti-hormone problem. 1942.

Health Department

STATE DEPARTMENT OF HEALTH

A Report on the Functioning of the County Medical Care Program

During 1952, the Maryland State Department of Health found it necessary to deal with seven physicians (out of 852 participating) who had misused the County Medical Care Program.

The program has been in operation since 1945. Some misuse has been evidenced since 1947 and attempts have been made to prevent it. In 1952, however, it became clear that more positive action was needed. A brief account of the methods used to detect and prevent such misuse should be of interest to all Maryland physicians. The goal, of course, through suitable educational methods, is its complete elimination.

In order to prevent misuse, it is first necessary to detect it. In the County Medical Care Program, this is done by keeping a complete monthly record of reports on services rendered by each participating physician. At the end of each year, the records of each physician are summarized and analyzed. The records of those doctors who render either an unusual volume of total service or a high intensity of service per patient are segregated for special study. In 1952, the records of 49 of the 852 participating physicians were so studied.

Individual variation from the records of the majority of participating doctors did not necessarily mean misuse of the program. At this stage, the county health officer was notified of the discrepancies between the records of the physician in question and those of other physicians in his area. The health officer was asked to discuss the situation with the doctor, with the assistance of the county medical society or the medical care advisory committee, at his discretion.

The discussion of the problem with the physician in some cases revealed a logical basis for the differences, such as the geographical necessity for many home calls. If the facts indicated true misuse, simple discussion was often followed by a marked improvement.

In some instances, the problem cannot be handled well locally. In this event, the Bureau of Medical Services and Hospitals of the State Department of Health presents the problem to the Committee on Physicians' Services of the State Advisory Council on Medical Care. This committee consists of all those members of the Advisory Council who are physicians in active practice. This group studies the situation in detail and makes a suggestion to the full Advisory Council, which in turn makes its own recommendation to the State Board of Health.

In 1952, the records of eight physicians were brought to the attention of the Committee on Physicians' Services. The end results in these cases were as follows:

One physician was found to be rendering an extremely high quality of service, commensurate with its cost. Therefore, this case was closed.

Two doctors, when notified in writing of their unusually high frequency of service per patient, stated that they no longer wished to be associated with the program.

One physician was officially dropped from the program because he had misrepresented information on his bills. On the basis of the above, the county medical society terminated his membership.

The remaining four physicians agreed to accept payment for their services at the average monthly cost per patient for all participating doctors in their respective counties. At the Department's request, one of the four in this last group returned $117.00 to the State on the basis of overpayments made, due to faulty bills. This doctor was officially censured in a letter from his county medical society.

From November 1952 through February 1953, actual cash savings to the program were $1,576.47. This represented some bills which were rejected for payment and some which were paid at less than face value, as explained above. There was a further saving which cannot be estimated, because a number of physicians voluntarily reduced their billings when the problem was called to their attention by the county health officers or the Committee on Physicians' Services.

R. H. Riley

Director

STATE OF MARYLAND DEPARTMENT OF HEALTH

MONTHLY COMMUNICABLE DISEASE REPORT

Case Reports Received during 4-week Period, July 31–August 27, 1953

	CHICKENPOX	DIPHTHERIA	GERMAN MEASLES	HEPATITIS, INFECT.	MEASLES	MENINGITIS, MENINGOCOCCUS	MUMPS	POLIOMYELITIS, PARALYTIC	POLIOMYELITIS, NON PARALYTIC	ROCKY MT. SPOTTED FEVER	STREP. SORE THROAT INCL. SCARLET FEVER	TYPHOID FEVER	UNDULANT FEVER	WHOOPING COUGH	TUBERCULOSIS, RESPIRATORY	SYPHILIS, PRIMARY AND SECONDARY	GONORRHEA	OTHER DISEASES	DEATHS: Influenza and pneumonia
Total, 4 weeks																			
Local areas																			
Baltimore County	6	—	2	1	—	—	17	21	15	—	—	2	1	5	19	—	14	—	—
Anne Arundel	—	—	1	3	—	—	1	6	3	1	—	—	—	1	7	1	5	—	—
Howard	—	—	—	—	—	—	—	1	—	—	—	—	—	—	2	—	1	—	—
Harford	1	—	3	1	1	—	—	3	—	1	—	—	—	—	4	—	—	—	—
Carroll	—	—	—	—	—	—	—	—	1	—	—	—	—	1	2	—	2	—	1
Frederick	—	—	1	1	—	—	1	2	—	1	—	—	—	8	—	—	2	—	1
Washington	—	—	—	—	—	—	1	—	1	—	—	—	—	—	5	—	1	—	—
Allegany	—	—	—	1	1	—	—	—	—	—	—	—	—	1	4	—	2	—	—
Garrett	—	—	—	2	—	—	—	—	—	—	—	2	—	—	1	—	—	—	—
Montgomery	—	—	1	2	1	—	23	7	6	2	—	1	—	9	5	—	2	—	2
Pr. George's	—	—	1	—	2	—	5	4	6	—	1	—	—	2	6	—	—	—	1
Calvert	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	c-1	1
Charles	2	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—
Saint Mary's	—	—	—	13	—	—	—	1	—	—	—	—	—	—	3	—	4	—	—
Cecil	—	—	—	1	—	—	—	—	—	2	—	—	—	—	2	—	—	t-1	2
Kent	—	—	—	—	—	—	1	2	—	—	—	—	—	—	1	—	—	—	—
Queen Anne's	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Caroline	—	—	—	—	—	—	4	1	—	—	—	—	—	—	1	—	2	—	1
Talbot	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	2	—	—
Dorchester	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	11	—	—
Wicomico	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	16	—	—
Worcester	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—
Somerset	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	3	—	—
Total Counties	10	0	9	25	5	0	53	49	33	7	2	5	1	28	70	3	67		9
Baltimore City	9	1	4	3	27	0	79	23	29	0	8	1	0	14	95	1	568	c-2	14
State																			
July 31–August 27, 1953	19	1	13	28	32	0	132	72	62	7	10	6	1	42	165	4	635		23
Same period 1952	22	0	15	9	45	1	45	23	33	9	24	3	1	11	213	21	674		32
5-year median	26	4	9	—	61	2	52	57		14	14	4	2	46	211	53	716		26
Cumulative totals																			
State																			
Year 1953 to date	2683	9	1415	329	1458	58	2181	134	108	18	2169	19	9	222	1596	94	5119		524
Same period 1952	2729	7	823	157	9058	66	873	43	36	22	819	15	12	151	1876	121	4694		475
5-year median	3023	56	520	—	3954	58	1563	89		45	858	21	30	528	1868	599	4810		442

c = congenital syphilis under 1 year of age.

m = malaria contracted outside the State.

t = tetanus.

As may be seen the incidence of poliomyelitis is approximately 50% more than the comparable period of last year. The proportion of paralytic cases to non paralytic is about the same as last year. There have been 12 households in which multiple cases have occurred. The efficacy of gamma globulin remains to be evaluated.

BLUE CROSS AND BLUE SHIELD

THE HISTORY OF BLUE CROSS—A NATIONAL HEALTH PLAN

R. H. DABNEY*

There is evidence of the existence of a prepayment health plan on the North American continent as long ago as 1655 in Montreal; similar plans were found in the mining and logging camps of the central Northwest in the 1880's; and there was a plan started in Rockford, Illinois in 1912 that closely resembled our present Blue Cross. However, these isolated early efforts to prepay hospital care were primarily local in nature.

The real prototype of present day Blue Cross came into being in 1929 when a group of schoolteachers in Dallas, Texas realized that they *as individuals* could not save enough to pay hospital bills in an emergency. By a little figuring they found that *as a group* they could easily pay all the hospital bills they were likely to incur. So they entered into an agreement with the Baylor University Hospital whereby, for $3.00 per person per semester, each of the teachers was eligible for twenty-one days of hospital care.

The experiment proved a great success. Other hospitals heard of it and followed suit. But in cities having more than one hospital, overlapping and competitive difficulties arose. It immediately became clear that to be successful, any plan would have to include all the hospitals in the area and permit the patient to choose the one he wished. This was the beginning of Blue Cross.

The idea was tried in California in 1932 and in New Jersey the following year. The latter experiment developed so rapidly that after six months the working capital which has been advanced by a commercial agency was returned and the hospitals took over the management.

* Executive Director of Maryland Hospital Service, Inc. and Maryland Medical Service, Inc.

From that time to the present, more and more people have come to realize that illness and accidents are unpredictable and that some form of protection against the financial hazards involved is imperative. Membership growth was phenomenal—"Blue Cross" was like a magic phrase. Millions of people were now able to pay their hospital expenses on a personal budgetary basis. The Plan changed many patients from a charity medically indigent status to a medically self-supporting status and at the same time meant more income to the hospitals.

At present, there are eighty-eight Blue Cross Plans with 44,000,000 members nationally protected through the cooperation of over 4,000 member hospitals. The eighty-eight Plans differ in some respects as to rates charged, amount of protection, and methods of operation, but, in general they follow a common pattern. All are operated on a non-profit basis and their collective aim is to bring complete health protection within the range of every pocketbook of every person in the community. Each Plan has local autonomy but must meet the standards set up by the National Blue Cross Commission and the American Hospital Association. Only by meeting and adhering to these standards of organization and operation may a Plan use the symbol of Blue Cross and so qualify for the integrity, honesty and prestige which it represents.

Maryland Hospital Service, Inc., the Blue Cross Plan for Maryland, was founded in 1937 and now has over 860,000 subscribers and 40 member hospitals. Since this enrollment represents approximately only one of every three Marylanders, you will quickly see we still have a large potential. We hope to realize a part of that potential when we are able to launch a program of non-group enrollment. That will be another big chapter in the Blue Cross Story.

Woman's Auxiliary to the Medical and Chirurgical Faculty

MRS. CHARLES H. WILLIAMS, *Auxiliary Editor*

REVIEW OF CONVENTIONS

The Annual Meeting

MRS. GEORGE H. YEAGER

The Annual Meeting of the Woman's Auxiliary to the Medical and Chirurgical Faculty was held on Wednesday, April 29 at the Sheraton Belvedere and was very well attended. The only formal action taken at the general session was in support of the Bricker amendment. This amendment would prevent government by international treaty from superseding United States law and the Constitution. It would prevent the imposition, from without, of *socialized medicine.*

The meeting was enlivened this year by spontaneous discussion in the form of a state-wide panel on Nurse Recruitment and on Public Relations.

Dr. Louis H. Bauer, President of the American Medical Association, who spoke at the luncheon, which the doctors attended with their wives, had a message for everyone in his description of the broad scope of the Medical Association's efforts in support of continued progress in the hospitals, schools of Medicine, Public Health, legislation, and for the individual patient and his physician, personally.

Following the luncheon, when the doctors returned to the Faculty Building to resume their scientific pursuits Auxiliary members stayed on to see a most beautiful fashion show. It added a decidedly frivolous note to our constant admonition that the doctor's wife must live (and look?) "good Public Relations."

This year for the first time, Maryland was honored by having the President of a neighboring State Auxiliary at our Annual Meeting. Mrs. Preston, of Delaware, was with us for the day, and we enjoyed having her very much indeed. Also, since Mrs. Charles H. Williams, as our President, and Mrs. John G. Ball, as our President-Elect, did attend the Pennsylvania Auxiliary Convention last winter, it begins to look as though a "good neighbor policy" within our National Auxiliary is becoming a reality for us. It is always most encouraging to exchange ideas with the wives of other doctors, nearby, whose ideals and aims are the same as our own.

THE FIRST FUTURE NURSES CONVENTION

Sponsored by Woman's Auxiliary to the Medical and Chirurgical Faculty

MRS. D. D. CAPLES

During the year 1952–1953 our State President, Mrs. Charles H. Williams, stressed nurse recruitment as part of our Public Relations Campaign. She further suggested that we have a state-wide convention of "Future Nurses of Maryland." Letters were written to the Superintendents of Public Schools and the Superintendents of Parochial Schools, asking their permission to write to all the High Schools in the State. This was granted, and each school was contacted.

COMMITTEE—FUTURE NURSES CONVENTION, MAY 12, 1953
Left to Right: Mrs. D. D. Caples, Mrs. E. G. Bauersfeld, Mrs. W. K. Mansfield, Mrs. J. G. Ball, Mrs. C. H. Williams, Mrs. T. C. Webster, Mrs. G. H. Yeager.

The Convention was held at the Medical and Chirurgical Faculty Building, 1211 Cathedral Street, Baltimore, Maryland, on May 12, 1953. That date is the birthday of Florence Nightingale, the founder of the Nursing Profession. The response to the Convention was more than we had dreamed possible, for more than four hundred girls attended. Mrs. John G. Ball, our new State President, was the presiding officer of the day. The program, with its talks on different aspects of Nursing, a film on Nursing, a parade of student nurses who gave one-minute

First Future Nurses Convention, May 12, 1953, Osler Hall, Medical and Chirurgical Faculty Building

descriptions of their own hospital, and a light luncheon, was most enjoyable.

Needless to say, this was a very thrilling day for all Auxiliary members throughout the State who had worked so hard in their own County on the Nurse Recruitment drive.

AMERICAN MEDICAL ASSOCIATION CONVENTION

MRS. CHARLES H. WILLIAMS

The thirtieth Annual Convention of the Woman's Auxiliary to the American Medical Association took place at the Hotel Statler, New York City.

Registration started on Sunday, May 31st. Members of the Hospitality Committee welcomed members and guests. Monday's program consisted of round table discussions of Program, Legislation, Today's Health, and Public Relations. Maryland took part in the panel on Public Relations, having Mrs. George H. Yeager as the Eastern Region Chairman. She cited our Nurse Recruitment scholarships, movie, and the first Future Nurses Convention. The movie and convention were of much interest, being the first in the Country. The idea of the Nurses' Convention was noted by representatives of the "Careers of Nursing" Committee and they requested photographs and data of the Convention for publication in their National magazine.

A tea honoring Mrs. Ralph B. Eusden, President, and Mrs. Leo J. Schaefer, President-Elect, was held that afternoon with the Medical Society of the State of New York and its Auxiliary acting as hosts.

On Tuesday, the formal opening began with the Invocation by His Eminence, Francis Cardinal Spellman, Archbishop of New York. The Archbishop read a prayer of his own from a mythical son fighting in Korea and "our" response. Dr. Peter Murray, President-Elect of New York County Medical Society, gave us greetings as well as Mrs. Harry I. Norton, President of the Woman's Auxiliary, who graciously gave us the key to the city.

A roll call revealed that Maryland had five delegates present, and fifteen total representation, which included our State President and two Past-Presidents. The address of the President of the Auxiliary followed, along with reports of the officers.

At the luncheon (where two Marylanders won door prizes) Dr. Kenneth McFarland, General Motors Public Relations Manager, was the speaker. I do not believe I have ever heard a more fascinating orator. Besides keeping us in laughter, he delivered a wonderful message, the summary of which was the need of Americans for an educated heart. Dr. McFarland felt we could acquire this by (1) an honest sincere respect for the dignity of human personality; (2) a clearer understanding of the difference between happiness and fun; (3) an enthusiasm for the things in which we believe; (4) a belief in an Infinite Power and enduring honor and honesty. Dr. McFarland felt that the only trouble with the Americans was that they stand frozen in their tracks for what they believe—and do nothing!

The afternoon session had the report of the Resolutions Committee. One of interest to me was that we are now supporting parts of the World Health Organization. At this session Maryland's President, Mrs. John G. Ball, gave a wonderful report of the accomplishments of our State. We felt that while we are still very young, we had contributed something concrete and progressive to Auxiliary work.

Wednesday's session had a memorial service to

our deceased members. State reports continued and special committee reports ended the morning. At the luncheon "our" Dr. Louis H. Bauer, President of the American Medical Association, addressed the body. He felt that all the "bad apples" in the medical profession should go. Other A.M.A. officials were honored at this function. Miss Margaret N. Wolfe, the Executive Secretary, reported on our National office in Chicago. Unfinished business consisted of the adoption of previously read resolutions, and new business the revisions to the Constitution and By-Laws.

On Thursday, Maryland again took great delight in learning that our State was represented in the new National officers. We were ever so proud to present to Mrs. George H. Yeager, a white orchid as she was installed as the Constitutional Secretary. The new President, Mrs. Leo J. Schaefer, was installed at this session also, and in her address she reminded us of our responsibilities as doctors' wives, and all the problems facing medicine today. Her views were: (1) an informed membership; (2) contacts with community leaders; (3) public service and good public relations. Much emphasis was put on the necessity of our support of the American Medical Education Foundation as the best insurance against socialized medicine.

In the evening the annual dinner was held at the Waldorf Astoria, which started with a social hour. After you attend several of these Conventions you meet people from all over the Nation and look forward to seeing these friends at various functions. The Honorable Ivy B. Priest, Treasurer of the United States, was the guest speaker. She reviewed our National and foreign policies emphasizing the part women now play in world affairs. Each person was presented an orchid flown by air from Puerto Rico. The Puerto Rican theme was carried out throughout the evening, with natives in costume providing the music. Straw hats from the Island served as the table centerpiece.

The seriousness of the business meetings was enlivened by new acquaintances and, of course, the gayety of the evenings in New York.

Marylanders well attended the Convention, and we left with fond feelings for New York City and the American Medical Association.

FOURTH SEMIANNUAL MEETING*

WOMAN'S AUXILIARY TO THE MEDICAL AND CHIRURGICAL FACULTY

WILSON HALL

CLINICAL CENTER (PUBLIC HEALTH INSTITUTE), BETHESDA, MARYLAND

TUESDAY, OCTOBER 6, 1953

9:30 a.m. to 10:00 a.m. Registration.

10:00 a.m. to 10:30 a.m. Board Meeting. State Officers, Committee Chairmen.

10:30 a.m. to 12:00 noon Business Meeting. Mrs. John G. Ball, *President*, Presiding.
Nurse Recruitment, Mrs. James Kerr.
New York Convention Report, Mrs. Charles H. Williams.
Organization, Mrs. Albert Goldstein.
"Today's Health," Mrs. S. R. Wells.
Public Relations, Mrs. George H. Yeager.

12:45 p.m. to 1:45 p.m. Luncheon—Cafeteria, Clinical Center.

2:00 p.m. GENERAL MEETING

(All members of the Auxiliary are invited.)

Historical Address: Jacob W. Bird, M.D.
Scientific Speaker: Leonard A. Scheele, M.D.,
Surgeon General, Department of Health, Education, and Welfare, U. S. Public Health Service, Washington, D. C.

3:30 p.m. to 5:00 p.m. Choice of Tours.
1. Clinical Center.
2. Homes of Brookeville.

Tours arranged by the Woman's Auxiliary to the Montgomery County Medical Society, Mrs. E. G. Bauersfeld, *President*, Mrs. William D. Aud, Mrs. J. Marion Bankhead, Mrs. G. V. Hartley, Mrs. Mark V. Ziegler, *Committee.*

* This program has been mailed to all members and potential members.

Maryland Academy of General Practice

President—Harold B. Plummer, M.D., Preston
President-Elect—Lauriston L. Keown, M.D., 1938 Linden Ave., Baltimore
Secretary-Treasurer—Nathan E. Needle, M.D., 4215 Park Heights Ave., Baltimore
Vice-Presidents—Bender B. Kneisley, M.D., Hagerstown
Geo. A. Knipp, M.D., 4116 Edmondson Ave., Baltimore
Norman E. Sartorius, Jr., M.D., Pocomoke City
Executive Secretary—Mr. Wm. J. Wiscott, 1818 Ashburton St., Baltimore

FIFTH ANNUAL SCIENTIFIC ASSEMBLY, LORD BALTIMORE HOTEL, OCTOBER 21, 1953

The Program Committee, Dr. Harold B. Plummer, Chairman, and Dr. Walter A. Anderson, Co-Chairman, has arranged another instructive day-long program of post-graduate lectures to be followed by a banquet.

Six outstanding clinicians and teachers will address the Academy—coming from Boston, New York City, Philadelphia, District of Columbia—on problems in medicine, surgery, obstetrics, and endocrinology. They will present timely and practical information on "Late Complications of Diabetes," "Management of Cardiac Failure," "Indication for Pulmonary Resection," "Management of Osteoporosis," "X-ray Diagnosis of Pregnancy," and "The Newer Treatment of Asthma."

The highlight of the annual banquet in the evening will be an address by Alfred P. Haake, Ph.D., author, lecturer and economic consultant to the *General Motors Corporation*. Dr. Haake's topic is "Pills and People."

All members of the Medical and Chirurgical Faculty, and all medical residents and interns in Maryland hospitals are cordially invited to attend this Fifth Annual Scientific Assembly of the Maryland Academy.

The Committee urges that the physicians bring their wives. An interesting program, including luncheon, is being arranged for them. There is no registration fee for the scientific program. The tickets for the banquet may be obtained from Dr. Nathan E. Needle, 4215 Park Heights Avenue, Baltimore 15, at a charge of $7.50 per plate for physicians, and $5.00 for their wives.

PROGRAM

9:00–10:00 A.M. Registration

Morning Session

Moderator—Dr. George A. Knipp

10:00 A.M.—*Late Complications of Diabetes: Prevention and Treatment*
Dr. Alexander Marble
Physician to New England Deaconess Hospital and Associate of Joslin Clinic, Boston.

11:00 A.M.—*The Management of Cardiac Failure*
Dr. Charles C. Wolferth
Emeritus Professor, School of Medicine University of Pennsylvania, Philadelphia.

12:00–1:00 P.M.—Lunch

Afternoon Session I

Moderator—Dr. Norman E. Sartorius, Jr.

1:00 P.M.—*In Memoriam*
Tribute to the late Dr. I. M. Zimmerman by Dr. Benjamin Kader.

1:15 P.M.—*The Indications for Pulmonary Resection*
Dr. Herbert C. Maier
Assistant Professor Thoracic Surgery, Columbia University, Graduate School of Medicine, New York.

2:15 P.M.—*The Management of Osteoporosis*
Dr. Ephraim Shorr
Associate Professor of Medicine, Cornell University, Chief of Endocrine Clinic, New York Hospital, New York.

3:15 P.M.—Recess

Afternoon Session II

Moderator—Dr. Bender B. Kneisley

3:30 P.M.—Presentation of "Physician of the Year" award

3:45 P.M.—*X-ray Diagnosis of Pregnancy*
Dr. Robert H. Barter
Associate Professor of Obstetrics and Gynecology, George Washington University, School of Medicine, Washington, D. C.

4:45 P.M.—*The Newer Treatment of Asthma*
Dr. Charles F. Geshickter
Professor of Pathology, Georgetown University, School of Medicine, Washington, D. C.

6:30 P.M.—Cocktail Hour

7:00 P.M.—Banquet
Dr. Harold B. Plummer, presiding
Principal speaker, Dr. Alfred P. Haake
Music

Note: *Members of the Maryland Academy who attend this assembly will receive credit for 6½ hours of formal post-graduate study.*

ANNUAL BUSINESS MEETING

The Annual Meeting of the Academy will be held in the Lord Baltimore Hotel promptly at 8:15 P.M., Tuesday, October 20th. Business to be transacted includes reports of the officers and committees, formal approval of new constitution and election of officers. All members are urged to be present.

MEMBERS HONORED

The Maryland Academy was particularly honored at the annual meeting of the A.A.G.P. by the election of Dr. E. Irving Baumgartner, *Immediate Past President*, to the Board of Directors of the American Academy for a 3-year term.

The new president of the Medical and Chirurgical Faculty, elected at the annual meeting, is none other than our *Vice President*, Dr. Bender B. Kneisley.

At the same meeting, our former *Vice President*, Dr. E. Paul Knotts, was elected Vice President of the Faculty.

Another *Vice President* of the Academy, Dr. Norman E. Sartorius, Jr., was recently appointed a member of the Board of Medical Examiners of Maryland.

Dr. Nathan E. Needle, *Secretary and Treasurer*, was elected President of the Maryland Academy of Medicine and Surgery at its annual meeting in April. Also, Dr. Needle was recently elected to the Board of Trustees of the Maryland Heart Association.

NEW DIRECTORS

Dr. Merrill M. Cross was appointed to the Board of Directors to the place made vacant by Dr. I. M. Zimmerman's untimely death. Dr. Hugh H. Ward was appointed to fill the unexpired term of Dr. Henry L. Fahrney, resigned.

NEW MEMBERS

Since our spring meeting the following physicians have been elected into *active* membership:

Paul Lubin
320 Patapsco Ave.
Baltimore 25

Melvin J. Jaworski
2711 Eastern Ave.
Baltimore 24

Louis J. Glass
2730 N. Charles St.
Baltimore 18

Donald C. MacLaughlin
4508 Edmondson Village
Baltimore 29

Benjamin Miller
2030 Wilkens Ave.
Baltimore 23

Imre Neubauer
936 Patapsco Ave.
Baltimore 25

Milton Siscovick
1429 W. Fayette St.
Baltimore 23

Aaron Charles Sollod
707 E. Fort Ave.
Baltimore 30

John P. D'Angelo
4223 Silver Hill Rd., S.E.
Washington, D. C.

Charles W. Trader
302 Market Street
Pocomoke City, Md.

Andrew C. Mitchell
228 N. Division,
Salisbury

Frank Anthony Zack
8248 Georgia Ave.,
Silver Spring

George B. Patrick
8700 Colesville Rd.,
Silver Spring

Theodor Sattelmaier
Stevensville

John A. Scharffenberg
804 Houston Ave.,
Takoma Park

The following have become *Associate* members:

Robert Wilson Ard
318 N. Potomac St.,
Hagerstown

Donald F. Bartley
9 N. Hanson Street,
Easton

Willard F. Smith
Rock Hall

Norris Perry
11602 Georgia Ave.,
Silver Spring

George W. Martin, Jr.
Queenstown

Dr. Norman E. Sartorius, Sr., Pocomoke City, was elected to *Emeritus* membership.

A.A.G.P. RECORD

The Maryland Academy as a chartered chapter of the American Academy of General Practitioners, is proud to point to the record of its parent. In six short years the A.A.G.P. has become the recognized spokesman for all general practitioners on a national and local level.

Because of the efforts of the A.A.G.P. the Government and Armed Forces have made special provision for the training of general practitioners and their proper advancement in rank.

Directly and indirectly approximately 50% of the hospitals in the United States have established departments of general practice. Representatives of the Academy are invited to participate in practically every important meeting.

Members of the Academy will be denoted in the forthcoming directory of the American Medical Association with a special symbol. Nearly every hospital, including teaching hospitals, are considering the needs of general practitioners. Post-graduate education has been made available to the general practitioner in his local community at minimum cost.

The honor and prestige of the general practitioner has increased considerably in the last six years.

General practitioners have increasingly been appointed to committees and office in both national and local medical organizations.

MEMBERSHIP REQUIREMENTS

The prerequisites for becoming a member of the Academy are simply that the physician must belong to the Medical and Chirurgical Faculty of Maryland, and must devote the greater part of his time to the general practice of medicine. Those who have been in practice for less than three years may apply for associate membership. Any doctor who has practiced medicine for 30 years or more, or who has attained the age of 70, is eligible to emeritus membership. One of the chief aims of the A.A.G.P. is to maintain post-graduate education. Each member of the Academy must during each 3-year period, report 150 hours of medical study to be eligible for re-election to membership. One hundred of the 150 hours can be made up by attendance of national, state and local medical society scientific meetings and at regular hospital staff clinical meetings. The remaining 50 hours must be for attendance at formal study courses such as are offered as post-graduate courses at various medical schools and approved hospitals, or such as the scientific meetings sponsored several times a year by the Maryland Academy of General Practice. Actually, during a 3-year period, a busy doctor who cannot get away for prolonged post-graduate courses, can receive enough credit by full attendance at these one-day scientific assemblies.

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ANNUAL MEETING OF THE AMERICAN HEART ASSOCIATION, 1954

The Annual Meeting of the American Heart Association in 1954 will be held at the Conrad Hilton Hotel in Chicago. The Assembly Panels and the General Assembly will be held on Thursday and Friday, April 1 and 2, and will be followed by a specific scientific program on clinical cardiology on Saturday and Sunday, April 3 and 4, conducted under the auspices of the newly formed Section on Clinical Cardiology of the Scientific Council. These sessions will immediately precede the annual meeting of the American College of Physicians.

Letters to the Editor

Anne Arundel County Medical Society
June 18, 1953

Dr. George H. Yeager, Secretary
Medical and Chirurgical Faculty of the State of Maryland
1211 Cathedral Street
Baltimore 1, Maryland

Dear Doctor Yeager:

At the regular meeting of the Anne Arundel County Medical Society on June 16, 1953, the following resolution was passed:

"Whereas the Anne Arundel County Medical Society recognizes the need of the Medical and Chirurgical Faculty for additional funds to carry on its splendid work,

"Therefore, the Anne Arundel County Medical Society commends the action of the House of Delegates in assessing each member ten dollars for the current year."

Sincerely yours,
/s/ J. Howard Beard, M.D.
Secretary-Treasurer.

Oakland, Maryland
June 19, 1953

Dr. J. Albert Chatard, Treasurer
Medical & Chirurgical Faculty of the State of Md.
1211 Cathedral Street
Baltimore 1, Maryland

Dear Doctor Chatard:

Enclosed find check for special assessment for members of the Faculty.

Early this month I was in New York attending a meeting of the Board of Directors of the American Academy of General Practice as well as the meeting of the American Medical Association. It was very interesting to find that in conversation with others, dues in Maryland, particularly those of the County members, were much lower than in many other states.

It would seem to me the most satisfactory solution would be a dues increase of $15.00 per year.

Very truly yours,
/s/ E. Irving Baumgartner, M.D

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WOMAN'S AUXILIARY TO THE BALTIMORE CITY MEDICAL SOCIETY

Mrs. Conrad Acton, Corresponding Secretary

Mrs. E. Roderick Shipley, Chairman of the Program Committee, is arranging the meeting for Wednesday, October 7, 1953. The guest speaker will be announced at a later date.

"Community Service in the Field of Health," is the subject to be developed during the coming year.

The members of the Baltimore City Medical Society are requested to urge their wives to attend this first meeting of the Woman's Auxiliary to the Baltimore City Medical Society.

PLAN TO ATTEND THE SEMIANNUAL MEETING

WHEN THE MEDICAL AND CHIRURGICAL FACULTY WILL CELEBRATE THE FIFTIETH ANNIVERSARY OF THE MONTGOMERY COUNTY MEDICAL SOCIETY

TUESDAY, OCTOBER 6, 1953

NATIONAL INSTITUTES OF HEALTH, BETHESDA, MARYLAND

For further details see your program